Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Effects of Communications Towers on Migratory Birds	)	WT Docket No. 03-187
	)	
	)	

To: The Commission

COMMENTS OF THE INFRASTRUCTURE COALITION

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CTIA – The Wireless Association® ("CTIA"), the National Association of Broadcasters ("NAB"), the National Association of Tower Erectors ("NATE"), PCIA – The Wireless Infrastructure Association ("PCIA"), The Wireless Communications Association International, Inc. ("WCA") and the Association for Maximum Service Television, Inc. ("MSTV") (collectively, the "Infrastructure Coalition") hereby submit these joint comments in response to the Federal Communications Commission's ("FCC" or "Commission") *Notice of Proposed Rulemaking* in this proceeding.[1] Infrastructure Coalition members construct, modify, own, operate, lease and manage tens of thousands of communications towers, which provide valuable wireless and broadcasting services to the public nationwide.[2] As such, they have a significant

[1] *Effects of Communications Towers on Migratory Birds*, WT Docket No. 03-187, *Notice of Proposed Rulemaking*, 21 FCC Rcd 13241 (2006) ("*NPRM*").

[2] CTIA is the international organization of the wireless communications industry for both wireless carriers and manufacturers. NAB is a nonprofit trade association that advocates on behalf of more than 8,300 free, local radio and television stations and also broadcast networks before Congress, the FCC and other federal agencies, and the Courts. NATE is a non-profit organization serving as the unified voice of the tower erection, service and maintenance industry. PCIA is the trade association representing the wireless telecommunications infrastructure industry. WCA is the trade association of the wireless broadband industry. MSTV is a nonprofit trade association of local broadcast television stations committed to achieving and maintaining the highest technical quality for the local broadcast system. CTIA, NAB, NATE and PCIA have

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interest in this proceeding. In addition, they bring to this proceeding a wealth of experience in tower siting issues at the federal, state and local levels.

INTRODUCTION AND SUMMARY

Infrastructure regulation addressing migratory birds is unsupported by the facts, the law and the public interest. Such regulation is unwarranted and would undermine key Commission priorities, including broadband deployment, public safety and facilities-based competition, while failing to materially advance the public interest.

The Infrastructure Coalition recognizes the importance of preserving the ecological balance of migratory birds, and reiterates its support for continued meaningful review and research concerning any relationship between towers and migratory bird mortality. To that end, Coalition members recently engaged in a dialogue related to avian tower safety with avian environmental groups. That dialogue is designed to consider approaches to focus and narrow the complex issues associated with avian tower safety. Ultimately, the Infrastructure Coalition joined with those representatives in requesting an extension of time to file comments in this proceeding.[3] The FCC granted that request on January 12, 2007.[4] This dialogue has thus far

(footnote continued)
all participated in earlier phases of this proceeding. Their prior submissions are hereby incorporated by reference.

[3] *See* Joint Motion for Extension of Time for Interested Parties to File Comments, WT Docket No. 03-187 (filed Jan. 8, 2007). Signatories to the motion included: American Bird Conservancy, CTIA, Defenders of Wildlife, Environmental Defense, NAB, National Audubon Society, NATE and PCIA.

[4] *Effects of Communications Towers on Migratory Birds*, WT Docket No. 03-187, *Order*, DA 07-72, ¶ 3 (rel. Jan. 12, 2007) ("[W]e note that the parties requesting this extension consist of several of the most active participants in this docket, and include representatives of both environmental groups and industry trade organizations. Given that they are in agreement that the additional time would be beneficial to conduct discussions related to avian tower safety, we find that providing the extension requested . . . serves the public interest."). Comments and replies are now due April 23, 2007 and May 23, 2007, respectively.

resulted in the parties jointly filing a request with the Federal Aviation Administration ("FAA") to conduct a conspicuity study to examine whether steady-burning red obstruction sidelights can be safely eliminated where currently prescribed for communications towers.[5] While additional discussions are ongoing,[6] the parties have decided not to seek a further extension but to continue discussions concurrently with this proceeding. The Infrastructure Coalition remains dedicated to a productive dialogue that will yield real progress in this docket.

While the parties may find some mutually agreeable steps that can advance these issues, there is simply no substantial evidence currently in the record to support any change in FCC policy. Most of the avian mortality studies produced to date are anecdotal rather than empirical, peer-reviewed studies. Although there has been some limited progress with respect to studies of select towers in Michigan, the FCC must continue its efforts to gather broad-based, peer-reviewed scientific evidence on avian mortality at communications towers. Only after this has occurred can the FCC evaluate whether there is probative evidence linking communications towers to significant avian mortality sufficient to merit regulatory intervention. The Commission must then determine whether there exists a reasonable solution that will advance the public interest.

At present, however, there remains a striking absence of broad-based, peer-reviewed evidence as to whether avian-tower collisions *significantly* affect the human environment. Indeed, although the reasons are unclear, it is widely agreed that avian-tower mortality rates are *declining* while the number of towers is increasing. As a result, it is a poor time for the FCC to consider changing the status quo absent further research which produces clear and compelling

[5] *See* Letter to Rick Marinelli, Manager, Airport Engineering Division, FAA from Anne Perkins, Manager, Industry Affairs, PCIA et al., Joint Request for Conspicuity Study (Feb. 15, 2007).

[6] *See, e.g.*, Letter to Marlene H. Dortch, Secretary, FCC from Andrea D. Williams, Assistant General Counsel, CTIA, WT Docket No. 03-187 (Apr. 6, 2007).

evidence that a new policy approach is needed and will generate significant improvements. It is therefore unwise to consider possible mitigation that may be ineffective, unintentionally harmful or cost-prohibitive.

Adopting new regulations under these circumstances is plainly contrary to law. In order to impose regulation here, the National Environmental Policy Act ("NEPA") requires that tower siting be a "major" federal action – which it is not – and that such action must have "significant" environmental impact – which the facts cannot support. In light of the lack of NEPA authority to act, the Migratory Bird Treaty Act ("MBTA") and the Endangered Species Act ("ESA") cannot prop up a new FCC environmental regulatory regime. Agency action would also conflict with Administrative Procedure Act ("APA") standards and Commission precedent, as well as the high threshold for agency action based on science prescribed by the Data Quality Act ("DQA") and Office of Management and Budget ("OMB") guidelines. Finally, under these circumstances, the FCC's ancillary authority fails to provide a basis for implementation of new regulations.

Even assuming *arguendo* that the facts and the law supported FCC action here – which is plainly not the case – there is insufficient evidence to decide what action to take. The benefits of white strobe lights have yet to be proven in broad-based, peer-reviewed studies, and no one has fully examined the impact of white strobe lights on air safety as compared with red lights. In fact, a recent report limited to select towers in Michigan and not yet peer-reviewed found no statistical differences in fatality rates among towers lighted only with red strobes, white strobes or red incandescent flashing beacons.[7]

Moreover, there has been no broad-based, peer-reviewed evidence about the impact of tower height on migratory birds and no such evidence exists upon which the FCC could rely to

[7] *See* discussion *infra* notes 39 and 124 and accompanying text.

create a reasoned "cut off" point for differing regulatory treatment. A preference for shorter towers may mean more towers are needed to ensure coverage to the same area a single taller tower may have covered, and taller and/or guyed towers may be necessary given certain geographical or topographical factors. The height and location of antennas are among the most important elements in the provision of wireless services.

And while collocation may be useful in some situations, mandatory collocation is not a workable proposal, as there are economic and technical situations where collocation is not feasible. Mandatory collocation regulations are inconsistent with the general engineering of wireless networks and could impair the quality of service to a community. Such regulations also may be inadvisable for public safety networks for security reasons. The facts simply do not exist for the Commission to determine whether there is an issue worthy of action let alone fashion a thoughtful solution. Devising any new regulations under these circumstances would be ill-advised.

Finally, regulations promulgated in the absence of reliable data may have unintentional adverse consequences to important public interest goals. Regulation may harm the expansion and design of public safety systems and, in turn, homeland security; undercut progress being made on historic preservation; delay infrastructure deployment and the digital transition; impose significant costs on government, the private sector and consumers; diminish network reliability; and ultimately have little, if any, impact on the future ecological viability of migratory birds.

I. THERE IS INSUFFICIENT EVIDENCE OF ENVIRONMENTAL CAUSATION OR IMPACT TO JUSTIFY GOVERNMENT INTERVENTION IN TOWER SITING

The *NPRM* acknowledges that "[u]nderstanding the scope of any problem involving communications towers and migratory birds is essential to devising meaningful solutions," and accordingly seeks comment on whether there is "probative evidence of a sufficient

environmental effect to warrant Commission action."[8] As reflected in the docket, there is no such evidence: the currently available data do not demonstrate causation between tower construction and alteration and declines in avian populations. The "evidence" itself is remarkably scant and further comprehensive study is necessary prior to any regulatory intervention. Ironically, at a time when the agency is considering new regulatory obligations, *avian-tower mortality rates are universally understood to be declining* in the face of increased tower construction.[9] In short, the factual record gathered to date cannot form the foundation for sustainable agency action.

A. The Scope and Causes of Any Possible Effects Remain Unknown

As a threshold matter, the Commission's avian expert, Avatar Environmental, LLC ("Avatar"), has concluded that the scope and causes of any potential effects of communications towers on migratory bird populations or species of birds remain uncertain. After examining data submitted in the *Notice of Inquiry* ("*NOI*") phase of this proceeding, Avatar concluded that there are no studies that demonstrate a *clear* relationship between avian collisions with towers and the decline of migratory bird species populations, and "biologically significant tower kills have not been demonstrated in the literature."[10]

What is clear is that bird mortality at towers is *actually decreasing* while numerous new towers are being built. According to Avatar, "over the last five decades of monitoring bird

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[8] *NPRM*, 21 FCC Rcd at 13256, 13259.

[9] *See* discussion *infra* Section I.A.

[10] *See* Avatar Environmental, LLC, et al., Notice of Inquiry Comment Review Avian/Communication Tower Collisions, Final, Prepared for Federal Communications Commission, at § 5.2 (filed Dec. 10, 2004) ("Avatar Report"); *see also* Technical Comment of Woodlot Alternatives, Inc., Prepared for CTIA, NAB and PCIA, at 7 (June 2005) ("Woodlot (6/05)") ("Existing information does not indicate that there is a biologically significant effect.").

population, the number of bird mortalities at towers is reported to be *decreasing* while the number of towers is increasing. All long-term studies show a similar *decline* in total bird mortality . . . ."[11] A 2006 article by Sidney A. Gauthreaux, Jr. and Caroll G Besler on the effects of lighting on migratory birds notes the same trend,[12] acknowledging that "studies indicate a significant decline in the number of tower fatalities over the last 20 years."[13] These reductions have occurred at a time when the number of cell sites has grown from approximately 1,000 in 1986[14] to more than 195,000 today.[15] While the reasons for the decline in mortality are not clear and more research is required,[16] the trend is inconsistent with the conclusion that communications towers now require additional regulatory oversight. Indeed, they raise the question whether a change in policy could undercut this otherwise promising trend. Only additional research can provide the answer.

Context also plays an important role in determining whether there is a problem that merits regulatory intervention. The avian mortality attributable to all communications towers is

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[11] Avatar Report at § 3.2.4 (emphasis added).

[12] *See* Sidney A. Gauthreaux, Jr. and Caroll G Besler, *Effects of Artificial Night Lighting on Migratory Birds*, ("Gauthreaux article"), excerpted from ECOLOGICAL CONSEQUENCES OF ARTIFICIAL NIGHT LIGHTING (Catherine Rich and Travis Longcore, eds., 2006).

[13] Gauthreaux article at 77; *see also* Joelle Gehring and Paul Kerlinger, Avian Collisions and Communications Towers: I. The Role of Tower Height and Guy Wires, at 10 (filed Apr. 12, 2007) ("Gehring (4/07) Height/Guy Wire Report") (noting "the documented decrease in bird fatality events since the early 1980s").

[14] *See* CTIA, History of Wireless Communications: 1980-1989, *available at* < http://www.ctia.org/advocacy/research/index.cfm/AID/10390> (visited Apr. 16, 2007).

[15] *See* CTIA, Wireless Quick Facts (Dec. 2006), *available at* < http://www.ctia.org/advocacy/research/index.cfm/AID/10323> (visited Apr. 16, 2007).

[16] *See* Comments of the U.S. Fish and Wildlife Service at 6 (Nov. 7, 2003) ("FWS (11/03)") ("[Q]uestions . . . about apparent declining levels of bird-tower mortality can only be answered by further research."); Avatar Report at § 3.2.4 ("Discussions on the reduction in bird mortality due to tower collisions over the last five decades have been speculative and have not been technically substantiated. Additional research on the hypotheses advanced [to explain the cause(s) for the reduction in bird-tower mortality] is needed.").

approximately 0.42 percent of all human-caused avian mortality, *e.g.*, window collisions, vehicle collisions, transmission lines, wind energy facilities, pesticides and oil pollution, hunting and domestic cat predation.[17] Thus, communications towers are *one of the smallest of all mortality factors*. Furthermore, the avian mortality attributable to communications towers is only 0.05 percent of the total migratory bird population (based on an estimated population of 10 billion birds).[18] Yet, the government has failed to take any action against some of the more significant causes of avian mortality. Consistent with the state of the science and the limited role of towers in avian mortality, the federal government has taken only minimal steps to modify the deployment of federally owned towers to address avian issues.[19] In pursuing the public interest goal of reducing avian mortality, there is no basis for singling out towers over other causes. Even if towers were a rational place to start regulation, there is no clear basis for singling out commercial towers rather than government-owned towers. In short, the FCC should not be leading the public policy debate on an issue with respect to which it lacks particular expertise and which may undercut its other public policy priorities.

Together, these factors raise serious questions about whether regulation of tower construction – including significant changes to lighting schemes – is likely to have any meaningful impact on bird mortality and whether avian conservation resources are better directed

[17] *See generally* Woodlot (6/05) at 6 & Figure 1 (identifying estimated avian mortality in the United States from each of the aforementioned human causes). In fact, domestic cat predation is so serious the American Bird Conservancy has begun a program to track birds killed by cats, described as "the number one killer of American birds." *See* John Nielsen, "Web Site Tracks Birds' Worst Enemies: Cats," NPR (Jan. 5, 2007), *available at* <http://www.npr.org/templates/story/story.php?storyId=6728958> (visited April 19, 2007).

[18] *See* Woodlot (6/05) at 6.

[19] *See* discussion *infra* Section II.E.

elsewhere given the significant detrimental effects that would flow from the proposed regulation to the public and industry.

B. Existing Research Does Not Meet Recognized Standards and Cannot Form a Rational Basis for Government Action

The record developed in this docket makes clear that better research is needed. This research must incorporate, among other things: standardized data collection and monitoring; publication in a peer-reviewed journal; nationwide, multi-year, multi-site studies; and unbiased, random site selection that also accounts for varying structural types (tall/short, guyed/unguyed, lighting) and landscape/siting features.[20] Peer-reviewed research is particularly important to ensure that "influential information" – information that will have a clear and substantial impact on important public policies, as is the case here – meets the standards of the scientific and technical community.[21] Indeed, FCC Commissioners have recently noted the importance of peer-reviewed science, both in the media ownership proceeding[22] and in testimony before Congress,[23] when used as the basis for agency action.

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[20] *See, e.g.*, Avatar Report at § 3-1 and Table 2-2; Woodlot (6/05) at 1-2; Technical Comment of Woodlot Alternatives, Inc., Prepared for CTIA, NAB and PCIA, at 4 (Feb. 2005) ("Woodlot (2/05)"); Technical Comments of Woodlot Alternatives, Inc., Prepared for CTIA, NAB and PCIA, at 3, 39-40 (Nov. 2003) ("Woodlot (11/03)"); Comments of the U.S. Fish and Wildlife Service at 2-3 (Feb. 11, 2005) ("FWS (2/05)"); FWS (11/03) at 3-11.

[21] *See* discussion *infra* Section II.F.

[22] In late 2006, the FCC announced that it would be conducting ten economic studies as part of its review of media ownership rules. In announcing the details of those studies, the Commission made clear that "[e]ach of these studies will be peer reviewed" – a point recently emphasized by Chairman Martin. *See Public Notice*, "FCC Names Economic Studies to be Conducted As Part of Media Ownership Rules Review," at 1 (Nov. 22, 2006); Response of Kevin J. Martin, Chairman, FCC to Questions for FCC Members from the Hon. John D. Dingell, Chairman, House Committee on Energy and Commerce et al., at 17 (Feb. 7, 2007).

[23] In connection with hearings before the House Subcommittee on Telecommunications and the Internet in February 2007, the FCC Chairman and Commissioners were asked what steps the Commission can take to enhance communication with the public and the depth and accuracy of

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The need for better research is echoed by an impartial and knowledgeable source, Avatar Avatar, the outside expert hired by the FCC to provide guidance on migratory bird matters. According to Avatar, "there is a geographical bias of the tower kill studies conducted to date."[24] Consequently, "*a more balanced distribution of mortality studies throughout the U.S. is needed* before conclusive statements can be made . . . ."[25] In addition, federal and state wildlife agencies, including the U.S. Fish and Wildlife Service ("FWS") (the agency with expertise concerning migratory birds) concur in this assessment. FWS has stated that "[m]ore research is needed . . . . Because so few studies − at both short and tall towers − are ongoing, it is somewhat meaningless to debate the realistic impact and true mortality caused by communication towers on birds *until systematic research is conducted nationwide*."[26] FWS has specifically "acknowledge[d] the need for standardized, consistent, scientifically-sound guidance" that "must

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the collection of data and analysis of affected industries. Commissioner Adelstein responded that it was important to encourage more peer review of FCC studies: "Policy debates and decision-making at the FCC increasingly turns on quantitative data and analyses. As a result, *the agency should invite peer review of FCC studies that will be used as the basis for policy changes*." Response of Jonathan S. Adelstein, Commissioner, FCC to Questions for FCC Members from the Hon. John D. Dingell, Chairman, House Committee on Energy and Commerce et al., at 21 (Feb. 7, 2007) (emphasis added). Commissioner McDowell similarly responded that "[p]eer review is another method of ensuring that Commission data and analyses are accurate." Response of Robert M. McDowell, Commissioner, FCC to Questions for FCC Members from the Hon. John D. Dingell, Chairman, House Committee on Energy and Commerce et al., at 13 (Feb. 7, 2007).

[24] Avatar Report at 3-3.

[25] *Id*. (emphasis added); *see* Comments of the State of New Mexico Department of Game and Fish at 2 (Mar. 23, 2007) ("NMGF (3/07)") (noting that existing research has been focused on the eastern states, and the only known study concerning towers in New Mexico documented "very little mortality").

[26] FWS (11/03) at 4 (emphasis added); *see* NMGF (3/07) at 1 ("At present, the published research is insufficient to quantitatively document the precise extent of population impacts, or the precise effectiveness of particular mitigation measures.").

also be peer reviewed,"[27] and has previously stated that existing single tower mortality studies are "insufficient for the FCC to change its rules and processes. Additional research is imperative."[28] The Infrastructure Coalition agrees.

The Avatar Report makes clear that available data on the effects of towers on migrating bird populations are largely based on incidental reports and observations. The few peer-reviewed studies that have been conducted focus mostly on individual towers.[29] No large-scale, peer-reviewed studies have been conducted.[30] Avatar has thus concluded: "Present studies do not establish the degree of impact that mortality at towers is having on migratory and resident bird populations. . . . [T]he extent this mortality is having on bird populations is unknown. Although there have been numerous studies on tower collisions, very few comparative studies have been completed."[31]

Because many prior studies focused on avian mortality at individual or a few towers, rough extrapolation has been used to generate dramatically higher population-wide and species-wide numbers. Doing so presents many dangers and is inherently unreliable. For example, FWS has estimated annual mortality due to tower collisions may range from 4 to 5 million to as high as 40 to 50 million birds.[32] As Avatar has explained, however, these "are simply estimates

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[27] FWS (2/05) at 2-3.

[28] FWS (11/03) at 6. On February 2, 2007, FWS filed comments in this proceeding supporting a change in the FCC's rules and processes, notwithstanding the need for additional research. *See* Comments of the U.S. Fish and Wildlife Service at 12, 19, 28 (Feb. 2, 2007) ("FWS (2/07)"). FWS does not acknowledge the departure from its prior statement that existing research is "insufficient" and further research "imperative." FWS (11/03) at 6. The Infrastructure Coalition will address the substantive merits of the recent FWS comments on reply.

[29] Woodlot (11/03) at 2-3.

[30] *Id*. at 3.

[31] Avatar Report at 5-9.

[32] *See* FWS (11/03) at 3.

created by extrapolation and . . . *the uncertainty associated with these estimates is high*."[33] Indeed, FWS has separately acknowledged as much, admitting "[t]here is *no confirmed, validated or accurate estimate* of the total number of birds killed by [communications and other] structures."[34] Nor do these estimates take into account the fact that bird-tower mortality rates are *declining*.[35] Accordingly, the Infrastructure Coalition agrees these figures are not reliable and cannot form the basis for regulation.

The response to the Avatar Report prepared by Land Protection Partners ("LPP") is not a viable predictor of avian mortality.[36] The Infrastructure Coalition's expert, Woodlot Alternatives, Inc. ("Woodlot"), demonstrated that the LPP Report is characterized by flawed analyses, a biased and insufficient sample size and faulty experimental design.[37] Woodlot also demonstrated why the materials LPP used to form its conclusions with respect to lighting are uncertain, incomplete and unavailable.[38] The LPP report did not include new research, but

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[33] Avatar Report at 3-23 (emphasis added); *see* Woodlot (11/03) at 7 ("Estimates of avian mortality for the entire country are generally made by extrapolating the results of area-specific studies. As a result, these estimates can have extremely large ranges, making accurate comparisons of the relative impact of each source of mortality difficult to determine. In order to accurately assess the impact of human-caused bird mortality on overall bird populations within a certain geographic range, the total bird population within that range, including migrants, would need to be known. To date, the few estimates of total bird populations that exist for any geographic region are speculative and vary widely.").

[34] *See* FWS, *Finding on Petition to List the Cerulean Warbler as Threatened*, 71 Fed. Reg. 70717, 70730 (Dec. 6, 2006) (emphasis added).

[35] *See supra* Section I.A.

[36] *See* Land Protection Partners, Scientific Basis to Establish Policy Regulating Communications Towers to Protect Migratory Birds: Response to Avatar Environmental, LLC, Report Regarding Migratory Bird Collisions with Communications Towers (Feb. 14, 2005) ("LPP Report"); *see also* Land Protection Partners, Reply to Comments Filed with the Federal Communications Commission on the Avatar Report (Mar. 9, 2005) ("LPP Reply").

[37] *See generally* Woodlot (6/05). Woodlot is regarded as "one of the top avian risk assessment firms in the United States." *Id*. at 4.

[38] *Id.*

instead relied upon interpretations of, and extrapolation from, existing research that has been discredited and/or deemed unreliable. As such, it also cannot form an independent basis for the FCC to change its rules.

C. While Research Improves, Recent Developments Do Not Form a Basis for Government Action

Since the pleading cycle ended in response to the Avatar Report in 2005, proponents of regulation have pointed in particular to two developments in support of their positions: the latest findings in the Michigan Study[39] and an article by Gauthreaux et al. on the effects of lighting on migratory birds.[40] While the Michigan Study provides some useful data, neither the study nor the article forms a sufficient basis for regulation. The first-of-its-kind Michigan Study is an important step towards developing protocols for more advanced study of a wider range of towers. Substantial research, however, remains to be done. The study, while an improvement over other research efforts, has a limited sample size and geographic area and lacks observation of small towers.[41] Specifically, the study was limited to six towers in the 380-480 feet AGL range in 2003-2004, and 21 towers of similar size plus 3 towers over 1,000 feet AGL in 2005. No towers below 380 feet AGL were included in the study, and only towers in Michigan were

[39] Since 2003, Dr. Joelle Gehring has been the principal investigator examining migratory bird collisions at several towers in Michigan operated by the Michigan Public Safety Communications System. This study is referred to herein as the "Michigan Study." *See NPRM*, 21 FCC Rcd at 13255 n.99. On April 12, 2007, two reports prepared in connection with the study and authored by Dr. Gehring and Paul Kerlinger were submitted in the docket of this proceeding. *See* Gehring (4/07) Height/Guy Wire Report, *supra* note 13; Joelle Gehring and Paul Kerlinger, Avian Collisions and Communications Towers: II. The Role of Federal Aviation Administration Obstruction Lighting Systems (filed Apr. 12, 2007) ("Gehring (4/07) Lighting Report"). The Infrastructure Coalition will address these recent reports on reply. The instant comments focus on the preliminary study results relied upon in the *NPRM* and presentations made by Dr. Gehring concerning those results.

[40] *See* Gauthreaux article, *supra* note 12.

[41] *See* Woodlot (6/05) at 11-14.

included.[42] Yet – in the United States – the majority of towers are not tall towers.[43] While the study suggests some trends with respect to guyed/unguyed towers and solid/strobe lighting systems, the findings "did not observe any large bird fatality events"[44] and no endangered birds were found.[45] Candidly, the lead investigator of the study has acknowledged "Further studies [are] needed."[46] In addition, the study has not yet been peer reviewed.

Even assuming the Michigan Study results were ultimately found compelling, the study does not examine potential solutions to the causal factors it identifies. For example, if the study concluded that taller towers have a negative impact on avian mortality, the follow-on public policy question is whether the multiple smaller towers necessary to achieve similar coverage as the single tall tower would ultimately cause higher or lower avian mortality than the tall tower. Thus, although causation is an important fact to discover, even that data only supports action if research can identify solutions that actually advance the public interest. Accordingly, the

[42] *See NPRM*, 21 FCC Rcd at 13255-56.

[43] *See* Woodlot (6/05) at 2. For example, 85% of Sprint's towers are less than 200 feet tall and 99% are less than 300 feet tall. *See id*. Similarly, 67% of Cingular's towers are less than 200 feet tall and 85% are less than 300 feet tall. *See id*.; *see also infra* Section III.B.

[44] Gehring (4/07) Height/Guy Wire Report at 10; *see also* LPP Report at 14; Comments of Joelle Gehring on Avatar Report at 4 (Feb. 14, 2005) ("Gehring Avatar Comments").

[45] At a presentation to the infrastructure industry in late 2006, Dr. Gehring indicated that no endangered species have been found under towers as part of her multi-year study.

[46] Joelle Gehring, *Michigan State Police Communication Tower Study: Results Applicable to Wind Turbines*) ("Michigan Study Results Presentation"), Summary, *available at* <http://www.fws.gov/midwest/greatlakes/windpowerpresentations/Gehring.pdf> (visited Apr. 16, 2007); *see also* Gehring (4/07) Height/Guy Wire Report at 11 ("We feel that tower studies conducted in other geographic settings would be valuable for replication and validation of our results."); Gehring (4/07) Lighting Report at 12 ("Studies of how the lights on taller towers impact fatality rates should be the focus of future conservation research.").

Michigan Study findings do not provide a viable and legally sufficient basis to change FCC requirements.[47]

The Gauthreaux article is nothing more than a repackaging of old data. The article focuses only on the effects of night lighting on migratory birds and relies upon prior anecdotal reports, estimates and extrapolation. With regard to the influence of tower lighting on migratory birds specifically, it relies upon unpublished data, observations at a few towers in 1986, and personal communications.[48] Such anecdotal reports, outdated findings and personal observations and communications cannot sustain new FCC regulation. As the authors themselves note, "[m]uch more research is needed to answer . . . questions . . . related to the mechanisms of how migratory birds are influenced by artificial lighting."[49]

The Infrastructure Coalition is not aware of any wide-scale study efforts or non-anecdotal, peer-reviewed reports since the Avatar Report findings in September 2004 that would justify new regulation. One of PCIA's members, American Tower Corporation, however, recently sponsored a study examining bird (and bat) mortality at six unguyed, unlit towers in Arizona under 200 feet.[50] No deceased birds were found in 2006, and in 2005 only two avian deaths were reported.[51] As this makes clear, all this conflicting anecdotal evidence mandates that

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[47] Indeed, regulation based on preliminary results and trends may actually undermine the goal of avian safety rather than enhance it, as discussed in Sections III and IV, below.

[48] Gauthreaux article at 81-86, 88.

[49] *Id*. at 86.

[50] *See* Clayton Derby, *Bird and Bat Fatality Monitoring of Six Unguyed, Unlit Cellular Communications Towers within the Coconino and Prescott National Forests, Arizona: 2006 Season Results*, prepared for American Tower Corporation, at 4-6 (Dec. 15, 2006), *available at* <http://www.west-inc.com/reports/ATCBirdandBat2006.pdf> (visited Apr. 16, 2007).

[51] A single avian death in 2004 was not attributed to a tower collision. *See id*. at 5.

the Commission proceed cautiously and adopt a non-intervention approach, pending the conduct and completion of more, better studies, as discussed below.

II. REGULATION IS NOT SUPPORTED BY ENVIRONMENTAL STATUTES OR THE COMMUNICATIONS ACT AND WOULD BE ARBITRARY

In order to impose regulation, NEPA requires that tower siting be a "major" federal action and that such action must have "significant" environmental impact. Neither requirement is satisfied here. Nor do the MBTA, the ESA or the Communications Act provide a basis to promulgate a new FCC environmental regulatory regime. Agency action would also conflict with APA standards, precedent, and the high threshold for agency action based on science prescribed by the DQA and OMB guidelines.

A. Tower Siting and Construction Is Not a Major Federal Action that Significantly Affects the Human Environment under NEPA

While NEPA applies to every federal agency, agencies must prepare an environmental impact statement and adopt regulations only for "major Federal actions" which "significantly affect[]" the quality of the human environment."[52] Neither standard is met here. The legitimacy of this conclusion is underscored by the fact that, to date, no other federal agency has issued regulations addressing migratory birds and communications towers. The closest any has come are two (Defense Department and Coast Guard) Memoranda of Understanding ("MOUs") with FWS, which do not come close to the invasive and burdensome proposals under consideration in this rulemaking proceeding.[53] Yet here the FCC – which lacks environmental expertise, and acting on scant evidence that communications towers are even a significant contributor to avian

[52] 42 U.S.C. § 4332; 40 C.F.R. §§ 1.505.1(a), (b).

[53] *See* discussion *infra* Section II.E.

mortality – proposes to boldly regulate by going far afield from where any other federal agency has yet ventured. These actions could only be based on a federal government role in actual tower siting and construction, a role that today could only be described as tangential.

1. Tower Siting and Construction Is Not a Major Federal Action

As a threshold matter, NEPA only applies to the siting and construction of communications towers if such siting and construction is a "major Federal action." The Supreme Court has stated, quoting Council on Environmental Quality ("CEQ") implementing regulations, "'[m]ajor Federal action' is defined to 'includ[e] actions with effects that may be major and which are potentially subject to Federal control and responsibility. . . .' Thus, the relevant question is whether the [alleged harm to the environment] is an 'effect' [of the agency action]."[54] The Court then went on to explain that a "'but for' causal relationship is insufficient to make an agency responsible for a particular effect under NEPA and the relevant regulations."[55] Rather, for an action to be deemed the cause of environmental harm, and thus a major Federal action, there must be "'a reasonably close causal relationship' between the environmental effect and the alleged cause."[56] In other words, the agency must be the cause of the action leading to the environmental effect. In this regard, the Court referenced the doctrine of proximate cause from tort law.[57]

Proximate cause has been defined as follows:

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[54] *Department of Transportation v. Public Citizen*, 541 U.S. 752, 763-64 (2004) (quoting 40 C.F.R. § 1508.18).

[55] *Id.* at 767.

[56] *Id.* (quoting *Metropolitan Edison Co. v. People Against Nuclear Energy,* 460 U.S. 766, 774 (1983)).

[57] *Id.*

> What is said to be perhaps the best, as well as the most widely quoted, definition is that the proximate cause of an injury is that cause which, in natural and continuous sequence, unbroken by any efficient, intervening cause, produces the injury, and without which the result would not have occurred. Proximate cause is defined as the primary moving cause, or the predominating cause, from which the injury follows as a natural, direct, and immediate consequence, and without which the injury would not have occurred . . . .[58]

Applying this standard, the FCC is not the "primary," "moving" or "predominating" cause in any communications tower siting and construction and, in turn, any effects such action may have on migratory birds. The FCC's authority over radio communications tower siting and construction is subsidiary to its primary authority, which relates to radio transmission: "It is the purpose of this Act, among other things, to maintain the control of the United States over all the channels of radio transmission; and to provide for the use of such channels . . . by persons . . . under licenses granted by Federal authority."[59] Accordingly, the FCC closely and comprehensively regulates the "use" of radio frequencies, but does not comprehensively regulate the siting or construction of radio towers.

While FCC approval is required prior to tower construction in certain circumstances, *e.g.*, where towers need to be lighted and painted for air safety,[60] or for broadcast towers not involving minor changes,[61] the FCC does not itself choose the tower and the location *per se* is not its concern during the approval process.[62] Rather, private parties – radio licensees and tower owners – play the key role in deciding where to locate a tower, along with local zoning officials.

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[58] 57A AM JUR 2D *Negligence* § 428 (2006).

[59] 47 U.S.C. § 301.

[60] 47 C.F.R. § 17.4, implementing 47 U.S.C. § 303(q).

[61] 47 U.S.C. § 319.

[62] *See* Comments of the Cellular Telecommunications & Internet Association and the National Association of Broadcasters at 5-6 (Nov. 12, 2003) ("CTIA/NAB NOI Comments (11/03)").

In light of this background, the FCC is not the proximate cause of the siting and location of any radio communications towers and thus tower construction that may lead to an environmental effect is not a major Federal action under NEPA.[63]

This conclusion is particularly compelling in circumstances such as wide-area geographic licensing where (with certain exceptions such as where tower registration is required due to FAA notification requirements) Commission approval is not required for the construction of radio towers at specific locations. Indeed, as Chairman Martin has pointed out, "the federal government is often not even aware of the location of the antenna" in these instances.[64] Because the FCC does not authorize construction at a specific location, and a licensee is permitted by law to construct at a location of its choice without obtaining any FCC approval, the FCC can hardly be considered to be the proximate cause of any environmental harm resulting from a private

[63] We recognize that courts have often treated the question of whether or not governmental approval is required prior to private action as a key or determinative factor regarding whether private action also involves Federal action or major Federal action. *See, e.g., Mayaguerzanos por la Salud y el Ambiente v. United States,* 198 F.3d 297 (1st Cir. 2000); *Sugarloaf Citzens Ass'n v. FERC,* 959 F.2d 508 (4th Cir. 1992); *Sierra Club v. Penfold,* 857 F.2d 1037 (9th Cir. 1988); *NAACP v. Medical Center, Inc.,* 584 F.2d 619 (3d Cir. 1978); *Named Individual Members of San Antonio Conservation Society v. Texas Highway Dep't,* 496 F.2d 1017 (5th Cir. 1974); *Scientists' Institute for Public Information, Inc. v. Atomic Energy Comm'n,* 481 F.2d 1079 (D.C. Cir. 1973); *see also* 40 C.F.R. § 1508.18(b)(4) (major federal action includes "[a]pproval of specific projects, such as construction or management activities located in a defined geographic area. Projects include actions approved by permit or other regulatory decision"). We also recognize that the FCC tower registration program has been deemed an agency approval process and thus an "undertaking" under the National Historic Preservation Act ("NHPA"), *CTIA-The Wireless Association v. FCC,* 466 F.3d 105 (D.C. Cir. 2006), and that courts often treat the standard for what constitutes an undertaking under NHPA as closely analogous to what constitutes a major Federal action under NEPA. *See, e.g., SAC and Fox Nation of Missouri v. Norton,* 240 F.3d 1250 (10th Cir. 2001); *Sugarloaf Citizens Ass'n v. FERC,* 959 F.2d at 508; *Ringsred v. City of Duluth,* 828 F.2d 1305 (8th Cir. 1987). In this context, we are not aware of any court decision holding that the FCC grant of a site-specific construction permit or an FCC tower registration constitutes major federal action under NEPA and, for the reasons, discussed above, we believe it does not.

[64] *Nationwide Programmatic Agreement Regarding the Section 106 National Historic Preservation Review Process,* 20 FCC Rcd 1073, 1231 (2004) (Statement of Commissioner Kevin J. Martin Approving in Part and Dissenting in Part).

company's decision where to locate and construct such a tower. Nor does the agency make siting determinations for broadcast facilities it individually licenses.

In this regard, court decisions involving a Bureau of Land Management ("BLM") rule requiring advance notification of certain mining activities are instructive. The BLM rule required that the agency must be notified in advance of certain mining activities and allowed mining operations to begin 15 days thereafter. While the rule allowed the agency to notify filers within 15 days that their notices were incomplete and that they could thus not initiate construction, BLM approval was not required before construction could be commenced. Courts held that this regulatory scheme did not constitute major federal action under NEPA because only notification rather than advance agency approval was required before the private party proceeded.[65]

Of course, in the case of wide-area geographic licensees and other licensees who do not have to obtain FCC approval for construction at specific locations build their towers, there is even less government involvement than in the BLM situation. The licensees are not even required to notify the FCC and the Commission's rules do not provide even the limited authority reserved for the BLM. Communication tower construction thus does not constitute a major Federal action under NEPA. There is simply no major Federal action where, as here, "[n]o federal action is a legal condition precedent to the construction"[66] and there is "no overt act" by the Government.[67]

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[65] *Penfold,* 857 F.2d at 1314 (referring to BLM's review of the notifications as "only a marginal federal action rather than a major action"; "BLM cannot require approval before an operation can commence developing the mine."); *accord Mineral Policy Center v. Norton,* 292 F. Supp. 2d 30 (D.D.C. 2003) (same BLM rule).

[66] *Ringsred,* 828 F.2d at 1308.

[67] *Defenders of Wildlife v. Andrus,* 627 F.2d 1238, 1244-45 (D.C. Cir. 1980). Rulemaking or licensing decisions by the FCC not to require approval for construction at particular locations

(footnote continued)

2. Tower Siting and Construction Does Not Significantly Affect the Human Environment

Even assuming, *arguendo*, tower siting/construction is deemed a major federal action, incidental bird deaths resulting from collisions with towers do not "significantly affect[] the quality of the human environment," and therefore NEPA's provisions do not apply here or empower the FCC to adopt regulations concerning migratory birds. NEPA requires more than "some" environmental impact on the human environment to authorize regulation; it must be "significant."[68] Under CEQ regulations, significance is based on two factors: intensity and context.[69] Under neither factor may tower siting/construction be deemed significant under NEPA.

First, intensity refers to the "severity," or magnitude, of the impact, and takes into account cumulative effects.[70] Tower siting/construction cannot be said to have a significant impact on migratory birds under this factor because there is no evidence of "mortality that is of sufficient magnitude and importance that it causes the viability of a particular population or species to be affected."[71] In fact, the number of bird mortalities at towers is reported to be

(footnote continued)
also do not themselves constitute major federal actions. At the time of adopting such rules or granting such licenses, the FCC obviously did not and does not know the specific locations at which licensees may construct and is not specifically reviewing construction at those particular locations. These decisions hardly constitute the proximate cause of any environmental harm due to private construction at a specific location years later.

[68] *Sierra Club v. United States Army Corps of Engineers*, 771 F.2d 409, 411 n.2 (8th Cir. 1985); 40 C.F.R. § 1.505.1. The "human environment" includes the natural and physical environment and the relationship of people with that environment. 40 C.F.R. § 1508.14.

[69] 40 C.F.R. § 1508.27.

[70] *See* 40 C.F.R. 1508.27(b).

[71] Avatar Report at § 3.5.4. Avatar's focus on impacts to populations or species is consistent with NEPA's use of the broader term "significance" in measuring harm that would trigger the statute's application, unlike other statutes which prohibit "any" harm *per se*. *Compare* 42 U.S.C. § 4332 (agencies must account for actions significantly affecting the human environment in their
(footnote continued)

decreasing while the number of towers is increasing.[72] The Infrastructure Coalition is aware of no published, peer-reviewed studies showing viability of migratory birds as a whole or a particular species is threatened by communications towers.[73] As Avatar has noted, "[i]n estimating and characterizing the impact of communication towers on avian population, our knowledge of biological factors critical to the development of predictive impacts is simply not adequately developed to draw specific conclusions on the effects to migratory bird populations as a whole and possibly to specific species."[74]

Nor have proponents of regulation demonstrated significance. LPP has argued that significance can be determined "by assessing the number of individuals of each species killed at towers" and then making a "reasoned estimate" of species killed and at what rates.[75] No precedent is cited for this proposition, and such uncertainty concerning possible effects is

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(footnote continued)
procedures); 40 C.F.R. § 1508.27 (significance under NEPA based on context and intensity) *with* 16 U.S.C. § 703(a) (prohibiting the take under the MBTA of "any" migratory bird under certain circumstances). Congress clearly knew how to limit a taking to a single incidence but did not do so under NEPA. *See Touche Ross & Co. v. Redington*, 442 U.S. 560, 575-79 (1979); *ITT World Communications, Inc. v. FCC*, 725 F.2d 732, 743 (D.C. Cir. 1984).

[72] *See supra* Section I.A.

[73] *See supra* Sections I.B, I.C; Avatar Report at § 5.1 ("There are no studies to date that demonstrate an unambiguous relationship between avian collisions with communications towers and population decline of migratory bird species."); Woodlot (11/03) at 3 & App. A (summarizing the extent of peer-reviewed studies and their limitations).

[74] Avatar Report at § 3.5.4. LPP opines that it is "customary" to consider impacts of a project to be significant under NEPA if those impacts "1) reduce populations of species of local conservation significance, such as those listed under state endangered species acts, 2) interrupt the movement of wildlife across the landscape, or 3) result in declines in species that will lead to their endangerment." LPP Report at 4. No citation is provided, and the Infrastructure Coalition has been unable to locate any support for this proposition under NEPA, CEQ regulations or NEPA case law. It is telling that the factors LPP is applying to determine significance focus on species, yet NEPA is a broad-based environmental statute – which strongly suggests that the LPP factors do not derive from NEPA. To the extent the LPP factors relate to the MBTA or the ESA, those statutes do not apply here, as discussed in Sections II.B and II.C, below.

[75] LPP Reply at 8.

contrary to a finding of significance under CEQ regulations.[76] Woodlot has also explained why it does not withstand scrutiny: "The biological significance of avian mortality should be related to likelihood of [e]ffects to populations not effects to individual birds. Currently, available data are not sufficient to allow an accurate assessment of the numbers of individual birds killed at towers on a species-by-species basis, and are not sufficient to extrapolate to population-level effects. To accurately estimate mortality on a species-by-species basis, an unbiased random sample of a large number of towers, located in a wide variety of conditions and locations, would be needed."[77] Given the absence of such data, both Avatar and Woodlot have concluded that existing information does not indicate a biologically significant effect.[78]

Second, tower siting/construction cannot, in context, be said to have a significant impact on migratory birds. Under this prong of the CEQ regulations, the Commission must consider other causes of avian mortality, such as buildings, transmission lines, and vehicles, in determining whether avian deaths attributable to towers have a significant effect on the human environment.[79] As noted above, the avian mortality attributable to all communications towers is approximately *0.42 percent* of all human-caused mortality, *e.g.*, window collisions, vehicle collisions, transmission lines, wind turbines, pesticides and oil pollution, hunting and domestic cat predation. Therefore, communications towers are one of the *smallest* of all mortality factors. Under this metric alone, the role of towers in avian mortality can hardly be deemed sufficiently significant in the context of other known mortality factors.

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[76] *See* 40 C.F.R. § 1508.27(b)(5) (degree to which possible effects are uncertain or risks unknown relevant in determining significance); *see also* Avatar Report at 3-23 (cautioning about the high uncertainty created by extrapolation).

[77] Woodlot (6/05) at 1.

[78] *See* Avatar Report at § 5.1; Woodlot (2/05) at 3.

[79] *See* 40 C.F.R. § 1508.27(a) (must consider the significance of an action in context); *see* Woodlot (2/05) at 6-7; *see also* Avatar Report at 3-63.

In sum, based on the current evidence in the docket, the incidental death of "some" birds in the vicinity of communications towers is insufficient to constitute a "significant" effect on the quality of the human environment. Regulation is therefore neither permitted under NEPA nor warranted.

B. MBTA Does Not Give the FCC Authority to Promulgate Regulations and Is Inapplicable Here

The MBTA does not give the Commission – or any agency other than the Department of the Interior (DOI) – authority to promulgate regulations to enforce its terms. By its express provisions, the MBTA authorizes *only* DOI to adopt regulations to carry out the purposes of the MBTA: "the Secretary of the Interior is authorized and directed . . . to adopt suitable regulations" governing when and how migratory birds may be taken, killed or possessed.[80] Likewise, it permits only "employee[s] of the Department of the Interior authorized by the Secretary of the Interior to enforce the provisions" of the MBTA.[81] It is well-established that "the Commission can only issue regulations on subjects over which it has been delegated authority by Congress."[82]

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[80] 16 U.S.C. § 704; *see, e.g., United States v. Hardman*, 297 F.3d 1116, 1122 (10th Cir. 2002) ("Section 704 of the Act authorizes the Secretary of the Interior to promulgate necessary regulations to allow hunting or possession of migratory birds 'in order to carry out the purposes of the conventions.'"); *Hill v. Norton*, 275 F.3d 98, 106 (D.C. Cir. 2001) ("16 U.S.C. § 704 delegates authority to the Secretary [of the Interior] to adopt regulations allowing the 'hunting, . . . capture, [or] killing' of protected migratory birds."); *see also Minnesota Humane Society v. Clark*, 184 F.3d 795, 796 (8th Cir. 1999) (describing FWS as "the agency within the Department of the Interior charged with implementing the MBTA").

[81] 16 U.S.C. § 706.

[82] *Am. Library Ass'n v. FCC*, 406 F.3d 689, 705 (D.C. Cir. 2005); *see United States v. Mead Corp.*, 533 U.S. 218, 226 (2001) ("[D]eference to an agency's interpretation of a statute is due only when the agency acts pursuant to 'delegated authority.'") (citing *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984)); *Motion Picture Ass'n of America, Inc. v. FCC*, 309 F.3d 796, 801 (D.C. Cir. 2002) (agency regulation will not be upheld "absent a delegation of authority from Congress to regulate in the areas at issue"); *Aid Ass'n for Lutherans v. United States Postal Serv.*, 321 F.3d 1166, 1174 (D.C. Cir. 2003) ("An agency

(footnote continued)

Because the MBTA contains no delegation of authority for the Commission or any agency other than DOI "to adopt suitable regulations" or "enforce the provisions" of the MBTA, the MBTA cannot form the basis for FCC regulation with respect to migratory birds.

Congress clearly knew how to require federal agencies other than DOI to adopt regulations governing migratory birds but did not do so under the MBTA.[83] Indeed, both NEPA and the ESA apply by their express terms to all federal agencies.[84] Several circuits have held that the MBTA does not even apply to the federal government or actions taken under its auspices.[85]

In any event, the MBTA has a narrow purpose not implicated here: to prohibit conduct specifically directed at migratory birds, such as hunting. The act makes it illegal to "pursue, hunt, take, capture, kill, [or] attempt to take, capture, or kill" any migratory bird.[86] Several courts of appeals have held that these terms under the MBTA mean "conduct of the sort engaged

(footnote continued)
construction of a statute cannot survive judicial review if a contested regulation reflects an action that exceeds the agency's authority.").

[83] *See Touche Ross & Co. v. Redington*, 442 U.S. 560, 575-79 (1979); *ITT World Communications, Inc. v. FCC*, 725 F.2d 732, 743 (D.C. Cir. 1984).

[84] *See, e.g.*, NEPA, 42 U.S.C. § 4332 ("[A]ll agencies of the Federal Government shall . . . identify and develop methods and procedures . . . which will insure that . . . environmental amenities and values may be given appropriate consideration in decisionmaking . . . ."); ESA, 16 U.S.C. § 1531(c)(1) ("[A]ll Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this chapter."); *id*. at § 1536(a) ("Each Federal agency shall . . . insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species.").

[85] *See, e.g., Sierra Club v. Martin*, 110 F.3d 1551, 1555-56 (11th Cir. 1997) ("The MBTA does not apply to the federal government."); *Newton County Wildlife Ass'n v. U.S. Forest Service*, 113 F.3d 110, 115 (8th Cir. 1987) ("We agree with the Forest Service that MBTA does not appear to apply to the actions of federal government agencies."). *But see Humane Society of the United States v. Glickman*, 217 F.3d 882, 887-88 (D.C. Cir. 2000) (citing dictum in *Robertson v. Seattle Audubon Society*, 503 U.S. 429 (1992)).

[86] 16 U.S.C. § 703.

in by hunters and poachers"[87] that is "*directed* at migratory birds"[88] – not conduct "that *indirectly* results in the death of migratory birds."[89] Therefore, the MBTA does not extend to conduct like tower siting and construction which is not "*directed* at migratory birds" and, at most, only indirectly contributes to avian mortality.[90]

To construe the MBTA "as an absolute criminal prohibition on conduct . . . that *indirectly* results in the death of migratory birds" would "stretch this 1918 statute far beyond the bounds of

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[87] *See Seattle Audubon Society v. Evans*, 952 F.2d 297, 302 (9th Cir. 1991), *quoted in City of Sausalito v. O'Neill*, 386 F.3d 1186, 1225 (9th Cir. 2004); *Newton*, 113 F.3d at 115; *see also Mahler v. U.S. Forest Service*, 927 F. Supp. 1559, 1579-80 (S.D. Ind. 1996).

[88] *Newton*, 113 F.3d at 115.

[89] *Id.* In an analogous context, the Supreme Court likewise explained that use of the same terms in the ESA refer to "deliberate actions," whereas the separate term "harm" – which appears in the ESA *but not* the MBTA – "encompasses . . . indirect means of killing and injuring wildlife." *Babbitt v. Sweet Home Chapter of Communities for a Great Or*., 515 U.S. 687, 698 & n.11 (U.S. 1995). The ESA generally makes it unlawful for any person to "take" any endangered or threatened species of fish or wildlife. 16 U.S.C. § 1538(a)(1)(B). The term "take," in turn, is defined under the ESA to mean "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532(19). At issue in *Sweet Home* was the definition of "harm" adopted by the Secretary of the Interior. Justice Scalia, in his dissent, disagreed with the majority on the definition of "harm" but not the meaning of "pursue," "hunt," "take," "capture," and "kill." He explained that the latter, which also appear in the MBTA, encompass "affirmative acts . . . which are directed immediately and intentionally against a particular animal – *not acts or omissions that indirectly and accidentally cause injury to a population of animals*." *Sweet Home*, 515 U.S. at 719-20 (emphasis added) (Scalia, J., dissenting).

[90] *See Seattle Audubon*, 952 F.2d at 303; *Newton*, 113 F.3d at 115; *Mahler*, 927 F. Supp. at 1579-80; *see also U.S. v. FMC Corp*., 572 F.2d 902 (2d. Cir. 1978) (MBTA reaches as far as direct bird poisoning from toxic substances); *U.S. v. Corbin Farm Service*, 444 F. Supp. 510 (E.D. Cal.) (same), *aff'd*, 578 F.2d 259 (9th Cir. 1978). Indeed, in interpreting the terms other than "harm" under the ESA, the Solicitor of the Fish and Wildlife Service has opined that "these terms all represent forms of conduct that are directed against and likely to injure or kill" wildlife. *See* Memorandum of April 17, reprinted in 46 Fed. Reg. 29490, 29491 (1981). One district court has applied a proximate cause analysis in lieu of a direct/indirect analysis in the context of a motion to dismiss, without making a finding on the merits. *See U.S. v. Moon Lake Elec. Ass'n, Inc*., 45 F. Supp. 2d 1070 (D. Colo. 1999). While *Moon Lake* purports to follow the analysis in *Sweet Home*, it ignores the Court's discussion at 515 U.S. at 698 & n.11 and Justice Scalia's remarks at 515 U.S. at 719-20. *See supra* note 89.

reason."[91] As the Second Circuit noted in *FMC Corp*, "construction that would bring every killing within the [MBTA], such as deaths caused by automobiles, airplanes, plate glass modern office buildings or picture windows in residential dwellings into which birds fly, would offend reason and common sense."[92] The MBTA is thus inapplicable to activities like tower siting and construction and thus cannot form the basis for FCC regulation in this area.

C. ESA Covers Only Threatened or Endangered Species, Which Are Already Accounted for Under FCC Rules

Nor does the ESA provide a basis for the Commission to promulgate sweeping regulations purportedly designed to protect all migratory birds. The ESA covers only those species that are determined by DOI to be threatened or endangered.[93] The ESA does not apply to – or authorize DOI or any other federal agency to adopt regulations to protect – all migratory birds.[94]

The FCC has already fulfilled its obligations under the ESA. The ESA directs that "[e]ach Federal agency shall, in consultation with and with the assistance of the Secretary [of the Interior], ensure that any action authorized, funded, or carried out by such agency . . . is not

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[91] *Newton*, 113 F.3d at 115.

[92] *FMC Corp*., 572 F.2d at 905. In other words, "the MBTA does not penalize bird deaths where the birds themselves participated by flight into the hazard." *U.S. v. WCI Steel, Inc*., 2006 U.S. Dist. LEXIS 55593 at *11 (N.D. Ohio 2006) (interpreting *FMC Corp*.).

[93] 16 U.S.C. §§ 1531(b), (c), 1532(6), (20), 1533(a)(1), (c)(1).

[94] *See generally* 16 U.S.C. § 1531 *et seq.; compare TVA v. Hill*, 437 U.S. 153, 175 (1978 (plain intent of Congress in enacting ESA was to halt and reverse trend toward species extinction); *U.S. v. Bernal*, 90 F.3d 465, 467 (11th Cir. 1996) (purpose of ESA is to preserve various species of fish, wildlife and plants facing extinction) *with Humane Society of U.S. v. Watt*, 551 F. Supp. 1310, 1319 (D.D.C.) (ESA and MBTA concern two distinct problems), *aff'd*, 713 F.2d 865 (D.C. Cir. 1982); *Nat'l Audubon Society v. Davis*, 144 F. Supp.2d 1160, 1181 (D. Cal. 2000) ("The MBTA operates under purposes and policies similar to those of the ESA, *except that it seeks to protect different categories of bird life*. It has as its goal the 'protection of migratory birds.'") (emphasis added); *see also NPRM*, 21 FCC Rcd at 13257 ("Some, but not all, species of migratory birds are protected under the ESA.").

likely to jeopardize the continued existence" of any endangered species or threatened species or result in the "destruction or adverse modification of habitat of such species which is determined by the Secretary . . . to be critical."[95] The FCC fulfilled this directive when it revised its rules in 1988 to fully account for and effectuate the terms of the ESA.[96] It did so only after the new rules were *both reviewed and approved by CEQ and DOI* (FWS).[97]

Specifically, Section 1.1307(a)(3) provides that an EA is required for proposed facilities that may affect listed threatened or endangered species or designated critical habitats, or are likely to jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats, as determined by the Secretary of the Interior pursuant to the ESA. To assist in making this determination, the rules specifically authorize applicants to contact FWS.[98] Indeed, the Commission has formally designated all applicants as non-federal representatives for purposes of consulting with FWS to satisfy the consultation requirements of the ESA.[99] Thus, applicants and licensees are routinely required to evaluate their proposed construction projects for potential

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[95] 16 U.S.C. § 1536(a)(2).

[96] *See Amendment of the Commission's Environmental Rules*, 3 FCC Rcd 4986, 4986-87 (1988); 47 C.F.R. § 1.1307(a)(3).

[97] *Amendment of the Commission's Environmental Rules*, 3 FCC Rcd at 4986 ("We have concluded that a further revision of the rules is necessary to effectuate the Endangered Species Act [and other environmental statutes]. . . . [T]he rules are hereby amended to meet the requirements of these statues."), n.5 ("These rule amendments have been reviewed and approved by the following government agencies responsible for administering environmental laws: the Council on Environmental Quality [and] the Department of Interior (Fish and Wildlife Service and Bureau of Indian Affairs) . . . .").

[98] 47 C.F.R. § 1.1307(a)(3) note.

[99] *See* Letter from Susan H. Steiman, Associate General Counsel, FCC, to Steve Williams, Director, FWS (July 9, 2003), available at <http://wireless.fcc.gov/siting/endangeredspeciesletter.pdf>

adverse effects on species that are endangered, threatened, or otherwise subject to Section 1.1307(a)(3), and to file an EA if the terms of Section 1.1307(a)(3) are met.

The *NPRM* cites nothing in the existing record to establish that the Commission's current regulations are inadequate to protect those birds covered by the ESA that are threatened or endangered.[100] Avian groups cite no evidence to demonstrate systemic flaws with the current process – only a few poorly-supported "examples."[101] Even if substantiated, a few examples do not warrant an expansive regulatory response.[102] As the Commission has previously made clear in its 2001 *PEER* decision, "a few examples in no way justify the complete overhaul of the Commission's long-standing environmental rules."[103]

To the contrary, concerns with respect to select existing or proposed towers can be handled through the Commission's existing processes, which the FCC outlined in *PEER*:

> [T]he Commission can act on its own motion to require an applicant to submit an environmental assessment where it determines that a particular action may cause environmental harm. Further, interested persons can allege that a particular action, otherwise categorically excluded, will have a significant

[100] Avian groups make reference to birds of "management" or "conservation concern," but the ESA contains no directives to federal agencies like the FCC with respect to such birds. *See* Comments of American Bird Conservancy *et al*. in response to Avatar Report at 6 (Feb. 14, 2005) ("ABC Avatar Comments").

[101] These examples allege certain endangered or threatened birds have been killed "*at* communications towers" or "*at* a TV tower," but are made without citation to any evidence to demonstrate that the birds were indeed killed *by* the tower. *See* ABC Avatar Comments at 18 (emphasis added) (referencing, without citation, the red-cockaded woodpecker and the Kirtland's Warbler, "reportedly" killed in South Carolina). In fact, the LPP Report appended to the ABC Avatar Comments did not cite at all to the Kirkland's Warbler in its dataset, acknowledging that "Kirtland's Warblers are not regularly found at communications towers." *See* LPP Report at 10.

[102] As noted above, at a 2006 presentation to the infrastructure industry, the lead investigator of the Michigan study indicated that no endangered species have been found under towers as part of that multi-year study.

[103] *Public Employees for Environmental Responsibility; Request for Amendment of the Commission's Environmental Rules Regarding NEPA and NHPA*, 16 FCC Rcd 21439, 21445 (2001) ("*PEER*").

> environmental effect. In such case, a party may submit a written petition setting forth in detail the reasons justifying environmental consideration in the decision-making process regarding a specific application and the Commission can require an EA prior to disposition of the application. Additionally, in situations where the rules require an EA and the applicant certifies one is not necessary, enforcement action can be taken.[104]

Proponents of further regulation have not shown that existing procedures and remedies are inadequate to protect endangered species. Indeed, they were directed to pursue such remedies by the district court hearing their claims concerning possible avian-tower effects in Hawaii.[105] In dismissing the case for lack of jurisdiction, the court noted the availability of a number of remedies to the plaintiffs, including the ability to file a petition pursuant to 1.1307(c) of the FCC's rules.[106]

D. The Communications Act Does Not Delegate Authority to the FCC to Unilaterally Adopt Regulations with Respect to Migratory Birds

In the absence of authority under NEPA or other environmental statutes, the FCC lacks a basis to adopt regulations governing the interplay between towers and migratory birds. No provision of the Communications Act specifically authorizes the Commission to adopt migratory bird regulations requiring licensees and permitees to conduct avian studies, modify tower design, prefer certain lighting schemes, or otherwise take avian issues into account as part of the tower siting, construction or alteration process. While Section 303(q) authorizes the FCC to require the

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[104] *Id*. at 21445-46.

[105] *American Bird Conservancy v. FCC*, 408 F. Supp.2d 987 (D. Ct. Hawaii 2006).

[106] *See* 47 C.F.R. § 1.1307(c). In fact, proponents did file such a petition, in response to which the FCC asked the tower owners to provide information about their towers and FWS to provide information concerning listed threatened and endangered species in the vicinity of each tower. As a result of that information, the FCC determined that four of the towers did not pose a threat to endangered birds. For the remaining towers, the FCC ordered the registrants to prepare a biological assessment. *See American Bird Conservancy v. FCC*, 408 F. Supp.2d at 997 n.4.

painting or lighting of towers, this authority is expressly limited to situations where towers constitute or may constitute "a menace to air navigation."[107] Plainly, the proposed tentative conclusion to prefer a certain lighting scheme to "reduce[e] the incidence of bird mortality" has nothing to do with ensuring towers do not become a menace to air navigation,[108] and therefore the FCC's reliance on Section 303(q) as a basis for action here is without merit.[109] Indeed, the proposed solution (as discussed in Section III below) may actually undercut the goals of Section 303(q).

Nor do the general ancillary authority provisions of the Act cited by the FCC provide it with the authority to adopt regulations to protect migratory birds.[110] Section 4(i) of the Act authorizes the FCC to "make such rules and regulations . . . as may be necessary in the execution of its functions."[111] And Section 303(r) authorizes the FCC to "make such rules and regulations . . . as may be necessary to carry out the provisions of this Act."[112] It is well established that the FCC can exercise ancillary jurisdiction under these provisions only when "the regulations are reasonably ancillary to the Commission's effective performance of its statutorily mandated responsibilities."[113] Those responsibilities include the regulation of commerce in communication by wire and radio to provide "a rapid, efficient, Nation-wide, and world-wide wire . . .

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[107] 47 U.S.C. § 303(r).

[108] *See NPRM*, 21 FCC Rcd at 13262.

[109] *See id*. at 13271.

[110] *See id.* (citing 47 U.S.C. §§ 151, 154(i), 303(r)).

[111] 47 U.S.C. § 154(i).

[112] 47 U.S.C. § 303(r).

[113] *Am. Library Ass'n v. FCC*, 406 F.3d 689, 700 (D.C. Cir. 2005) (*citing United States v. Southwestern Cable Co*., 392 U.S. 157 (1968); *United States v. Midwest Video Corp*., 406 U.S. 649 (1972); *FCC v. Midwest Video Corp*., 440 U.S. 689 (1979)).

communication service."[114] The adoption of infrastructure regulation addressing migratory birds is ancillary to no statutorily mandated FCC responsibilities under the Communications Act. Nor can the FCC claim ancillary authority pursuant to NEPA, MBTA or the ESA.[115] Thus, the Communications Act cannot confer ancillary jurisdiction in this matter. Regulation that rests on no statutory foundation is "ancillary to nothing" and cannot be sustained.[116]

E. Agency Action Based on the Current Inadequate Evidentiary Foundation Would Be Arbitrary and Contrary to Precedent

Given the lack of an evidentiary foundation to support infrastructure regulation addressing migratory birds, agency action would conflict with basic APA principles precluding arbitrary and capricious decision-making. Agency action would also be inconsistent with precedent where the FCC declined to regulate in the face of inconclusive evidence.

Under the APA, courts will set aside agency rules found to be "arbitrary, capricious . . . or otherwise not in accordance with law."[117] Regulation in the face of a potential problem "may be highly capricious if that problem does not exist."[118] Thus, an agency's findings must be supported by substantial evidence[119] and its reasoning must evince a "rational connection

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[114] 47 U.S.C. § 151; *see Teledesic LLC v. FCC*, 275 F.3d 75, 79 (D.C. Cir. 2001).

[115] For the reasons stated above, those statutes do not provide the FCC with the authority to act in the manner contemplated here. *See also Community Television of So. Cal. v. Gottfried*, 459 U.S. 498, 510 n.17 (1983) ("The Commission's duties derive from the Communications Act, not from other federal statutes."); *Richmond Power & Light v. FERC*, 574 F.2d 610, 620 (D.C. Cir. 1978) ("What [an agency] is prohibited from doing directly it may not achieve by indirection.").

[116] *Am. Library Ass'n*, 406 F.3d at 692, 702.

[117] 5 U.S.C. § 706(2)(A); *Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947).

[118] *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 75 (D.C. Cir. 1977) (quoting *City of Chicago v. FPC*, 458 F.2d 731, 742 (D.C. Cir. 1971)).

[119] *Vernal Enterprises, Inc. v. FCC*, 355 F.3d 650, 658 (D.C. Cir. 2004); *Association of Data Processing Service Organizations, Inc. v. Board of Governors of Federal Reserve System*, 745

(footnote continued)

between the facts found and the choice made."[120] Predictive judgments also must have "ascertainable foundation in the record" showing "thoughtful consideration duly attentive to the comments received."[121] These standards cannot be met here.

The FCC's avian expert concluded that significant bird deaths "have not been demonstrated in the literature" and "[m]ore research is warranted."[122] The Infrastructure Coalition is unaware of any new peer-reviewed data since the Avatar Report which would alter the conclusion that more research is needed to determine whether there is a problem that warrants regulatory intervention and, if so, what form of intervention that regulation should take. This is especially true in the face of declining bird-tower mortality rates. Indeed, even Dr. Gehring, the author of the Michigan Study, has called for further research.[123] Importantly, Dr. Gehring noted that "[t]here were no statistical differences in the fatality rates among towers lit only with red strobes vs. white strobes. vs. red incandescent flashing beacons."[124] Under these circumstances, the adoption of regulations, including those based on the tentative conclusion to prefer white strobe lights to other lighting configurations, would be arbitrary.

Moreover, it would be arbitrary to subject actions overseen by the Commission to stricter requirements than apply to the same types of activities when carried out by executive branch agencies – particularly where, as here, those agencies (but not the Commission) are subject to a

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(footnote continued)
F.2d 677, 684 (D.C. Cir. 1984); *Cellular Tel. Co. v. Town of Oyster Bay*, 166 F.3d 490, 494 (2d Cir. 1999).

[120] *State Farm*, 463 U.S. at 43.

[121] *Telocator Network of America v. FCC*, 691 F.2d 525, 545 (D.C. Cir. 1982); *see also Cincinnati Bell Telephone Co. v. FCC*, 69 F.3d 752, 760 (6th Cir. 1995).

[122] *NPRM*, 21 FCC Rcd at 13253 (citing Avatar Report at § 5.1).

[123] *See supra* note 46 and accompanying text.

[124] Gehring (4/07) Lighting Report at 7.

specific Presidential directive mandating the protection of migratory birds. Executive Order 13186[125] requires "federal agencies" – defined to exclude independent agencies such as the FCC[126] – to execute MOUs with FWS enacting procedures "that shall promote the conservation of migratory bird populations."[127] More than six years after the Executive Order, the Department of Defense ("DOD"), Department of Energy ("DOE") and Coast Guard ("USCG") appear to be the only agencies to have executed such MOUs. Neither the DOD MOU nor the DOE MOU comes close to imposing standards as invasive and burdensome as those under consideration here. First, DOD's MOU[128] provides that DOD "will review" FWS documents "and consult with FWS as needed" when "considering potential effects on migratory birds of proposals for locating communications towers."[129] More generally, it provides that DOD shall "develop[] and implement[], as appropriate, conservation measures that would avoid or minimize the take of migratory birds."[130] DOE's MOU is similar and does not even mention towers.[131] Only the USCG MOU goes beyond such vague generalities, but even it focuses only on *new* search and

[125] Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, 66 Fed. Reg. 3853 (Jan. 17, 2001) ("Executive Order").

[126] *See id.* § 1(g); 5 U.S.C. § 104.

[127] Executive Order, 66 Fed. Reg. 3853 § 3(a).

[128] Memorandum of Understanding Between the U.S. Department of Defense and the U.S. Fish and Wildlife Service to Promote the Conservation of Migratory Birds (July 2006), *available at* <http://www.fws.gov/migratorybirds/EO/DoDMOUfinalSignature.pdf>; *see also* 71 Fed. Reg. 51580 (2006).

[129] *Id.* at § D(2)(f)(4).

[130] *Id.* at § D(1)(b)(1).

[131] DOE's MOU provides that DOE shall, "where appropriate and feasible, . . . develop and use principles, standards, and practices that lessen the amount of takings." Memorandum of Understanding Between the United States Department of Energy and the United States Fish and Wildlife Service Regarding Implementation of Executive Order 13186, "Responsibilities of Federal Agencies to Protect Migratory Birds," at § F(6)(a)(i) (Aug. 3, 2006), *available at* <http://www.fws.gov/migratorybirds/EO/DOEMOUfinalsignature.pdf>.

rescue broadcast towers and compliance is subject to budgetary limits and harmony with agency missions.[132]

If the evidence linking tower placement to avian mortality does not support more specific measures with respect to towers overseen by most executive branch agencies, then it does not support invasive regulation of towers overseen by the Commission. Indeed, the federal government has already reviewed and determined, based on the inconclusiveness or insufficiency of the scientific record, that stringent and specific regulation of *its own* towers is unwarranted.[133] Under these circumstances, application of the vast regulation contemplated here to *privately owned* towers would be fundamentally capricious. Proponents of regulation in this docket appear to be asking the FCC to take the lead in placing requirements on regulated parties that the executive branch has not seen fit to apply to itself. The Commission should decline this request, particularly where executive agencies (*not* the FCC) are subject to an express obligation to protect migratory birds. In short, it would be arbitrary and capricious to subject towers erected pursuant to FCC authority to such requirements unless and until the scientific evidence also justifies equivalent regulation with regard to DOD, DOE and other executive agencies.

Regulation in the face of inconclusive evidence is also inconsistent with precedent. For example, in a proceeding examining whether to amend the FCC's NEPA rules governing evaluation of the environmental effects of radiofrequency radiation from FCC-regulated transmitters, the FCC was faced with insufficient evidence concerning maximum permissible

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[132] Memorandum of Understanding Between the United States Coast Guard Assistant Commandant for Acquisitions and the United States Fish and Wildlife Service Addressing the U.S. Coast Guard's National Distress and Response System Modernization Project – Rescue 21, § F (Mar. 2003), available at <http://dmses.dot.gov/docimages/pdf88/265002_web.pdf>.

[133] *See supra* notes 53, 125-32 and accompanying text.

limits for induced and contact currents.[134] In its *RF Effects Order*, the FCC found: "[I]n view of the continuing questions and difficulties relating to evaluation of induced and contact currents, especially with regard to measurements, we are not adopting the exposure guidelines for induced and contact currents at this time. Until these questions are satisfactorily resolved, we see no practical way to require compliance with these limits."[135] Instead of prematurely adopting limits for induced and contact currents, the Commission stated that it would continue to monitor developments.

The decision in *Cellular Phone Taskforce v. FCC*[136] is particularly instructive. Petitioners in that case challenged a separate aspect of the *RF Effects Order* dealing with exposure criteria for "deep moderated extremely low frequency carrying waves," contending the revised rules did not go far enough. The FCC found that evidence in favor of stricter regulations was inconclusive and conflicting, and the Second Circuit affirmed:

> Petitioners criticize the FCC for not adopting the [National Council on Radiation Protection and Measurements's] recommendations for stricter standards . . . . It was not arbitrary and capricious for the FCC to reject the NCRP recommendation. *The scientific data were inconclusive on the dangers presented by such radiation*, and thus did not mandate a determination different from that reached by the FCC. The NCRP itself had concluded that the existence of modulation effects was unclear. The EPA had recommended that

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[134] *Guidelines for Evaluating the Environmental Effects of RF*, *Report and Order*, 11 FCC Rcd 15123, 15176 (1996) ("*RF Effects Order*"). The proceeding was conducted in accordance with the Telecommunications Act of 1996, which required that: "Within 180 days after the enactment of this Act, the Commission shall complete action in ET Docket 93-62 to prescribe and make effective rules regarding the environmental effects of radio frequency emissions." *See* Pub. L. No. 104-104, 110 Stat. 56, §704(b) (1996).

[135] *See RF Effects Order*, 11 FCC Rcd at 15176; *cf. Interconnection and Resale Obligations Pertaining to CMRS, Third NPRM*, 11 FCC Rcd at 9472 (1996) ("The inconclusiveness of the original record does not present a basis for us to adopt automatic roaming rules."), *cited in Interconnection and Resale Obligations Pertaining to CMRS, Third R&O*, 15 FCC Rcd 15975, 15983 (2000).

[136] 205 F.3d 82 (2nd Cir. 2000).

> "[w]hile studies continue to be published describing biological responses to nonthermal ELF-modulated RF radiation, *the effects information is not yet sufficient to be used as a basis for exposure criteria* to protect the public against adverse human health effects." ANSI had likewise found that "*no reliable scientific data exist* indicating that . . . modulation-specific [disease-related conditions] of exposure may be meaningfully related to human health."[137]

The situation here is analogous to those discussed above. As the FCC has done previously when confronted with inconclusive record evidence and the need for more fact-finding, it should find that adoption of migratory bird regulations is unwarranted.

F. Agency Action Based on Existing Studies Would Not Meet the Requirements of the DQA and Related OMB Guidelines

Federal law forbids regulation of the sort contemplated here based on scientific evidence that has not been subjected to rigorous independent review. Most available information on the effects of towers on migrating bird populations is based on anecdotal reports and observations. The existing data are woefully insufficient to meet federal requirements for adoption of new regulations based on scientific findings. For this independent reason, the Commission should not adopt any new requirements.

Enacted in 2000, the DQA[138] directed OMB to (1) issue guidelines requiring that federal agencies, including the FCC, maximize the "quality, objectivity, utility, and integrity of information (including statistical information)" that they "disseminate" and (2) in turn require covered agencies to produce their own agency-specific guidelines.[139] In several mandatory

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[137] *Id*. at 91 (emphasis added).

[138] The Consolidated Appropriation Act of 2001, Pub. L. No. 106-554, 114 Stat. 2763 (2000). The DQA is also sometimes referred to as the "Information Quality Act," or "IQA."

[139] *See id.* The DQA applies to all agencies subject to the Paperwork Reduction Act ("PRA"), 44 U.S.C. § 3501. The Commission, of course, is subject to the PRA, and thus to the DQA. *See generally* 44 U.S.C. § 3507.

"Guidelines" released under its DQA mandate, OMB has made clear that use of information as the basis for a new regulatory requirement constitutes "dissemination" of that information.[140] OMB has further interpreted the "objectivity" mandate to require assurance that such information, "as a matter of substance, is accurate, reliable, and unbiased,"[141] and was developed "using sound statistical and research methods."[142] Where the agency can reasonably determine that the information will have or does have a clear and substantial impact on important public policies or private sector decisions, the results must be "capable of being substantially reproduced."[143]

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[140] OMB has defined "dissemination" to include the distribution of "information prepared by an outside party in a manner that reasonably suggests that the agency agrees with the information." OMB, *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies*, 67 Fed. Reg. 8452, 8454 (2002) ("*Information Quality Guidelines*"). In turn, it has defined "information" to mean "any communication or representation of knowledge such as facts or data, in any medium or form." *Id.* at 8460 § V(5). Thus, reliance on information for rulemaking purposes constitutes "dissemination." *See* OMB, *Final Information Quality Bulletin for Peer Review*, 70 Fed. Reg. 2664, 2667 (2005) ("*Peer Review Guidelines*") (explaining, by way of example, that use of information "as the basis for an agency's factual determination that a particular behavior causes a disease" would constitute "dissemination"); *see also* Congressional Research Service, *The Information Quality Act: OMB's Guidance and Initial Implementation* at 1 (Sept. 14, 2004) (noting that distribution of "information [that] forms the basis of agencies' regulations or other policies" constitutes "dissemination" for DQA purposes).

[141] *Information Quality Guidelines* at 8453. OMB defines "scientific information" as "factual inputs, data, models, analyses, technical information, or scientific assessments related to such disciplines as the behavioral and social sciences, public health and medical sciences, life and earth sciences, engineering, or physical sciences." *Peer Review Guidelines* at 2667. Moreover, OMB and the Commission have interpreted "objectivity, utility, and integrity" to reflect three specific aspects of the first, more general characteristic, "quality." *See* Information Quality Guidelines at 8458-59, § III(1); *Implementation of Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Pursuant to Section 515 of Public Law No. 105-554*, 17 FCC Rcd 19890, Appx. A ¶ 12 (2002) ("*FCC Guidelines*").

[142] *Information Quality Guidelines* at 8459 § V(3)(b). Similarly, the *FCC Guidelines* state that "substantive objectivity means that the original and supporting data shall be generated, and the analytical results shall be developed, using sound statistical and research methods." *FCC Guidelines* at Appx. A ¶ 11.

[143] *Information Quality Guidelines* at 8460 § V(10).

In January 2005, OMB issued its *Peer Review Guidelines*, "designed to realize the benefits of meaningful peer review of the most important science disseminated by the Federal Government."[144] OMB noted that "[p]eer review is one of the important procedures used to ensure that the quality of published information meets the standards of the scientific and technical community."[145] As noted above, several FCC Commissioners have likewise recently noted the importance of peer-reviewed science in creating a foundation for sound agency decision-making.[146] Moreover, traditional "notice-and-comment procedures for agency rulemaking *do not provide an adequate substitute for peer review*," because "some experts – especially those most knowledgeable in the field – may not file public comments with Federal agencies."[147] Thus, OMB required that information the agency "reasonably can determine will have or does have a clear and substantial impact on important public policies or private sector decisions" ("influential information") must be subject to peer review unless such review is prohibited by law.[148]

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[144] *Peer Review Guidelines* at 2664. Notably, the *FCC Guidelines* preceded issuance of OMB's *Peer Review Guidelines*, and the Commission has not since updated its own Guidelines. Thus, there can be no claim here that the FCC's 2002 guidelines account for OMB's strict 2005 requirements.

[145] *Id.* at 2665. *See also id.* at 2668 ("[T]he insights offered by peer reviewers may lead to policy with more benefits and/or fewer costs. In addition to contributing to strong science, peer review, if performed fairly and rigorously, can build consensus among stakeholders and reduce the temptation for courts and legislators to second guess or overturn agency actions.").

[146] *See supra* notes 22-23 and accompanying text.

[147] *Id.* at 2665 (emphasis added).

[148] *Id.* at 2667, 2675 § II(1). OMB had anticipated (but not fully elaborated) this peer review requirement in its 2002 *Information Quality Guidelines*. *See Information Quality Guidelines* at 8459 § V(3)(b) (importing standards adopted by Congress in the Safe Water Drinking Act for application to all information analyzing "risks to human health, safety and the environment").

While the details of peer review generally are left to the agency's discretion, it must adhere to several key principles: review must be calibrated to the specific context,[149] and must occur prior to the information's use as the basis for regulation.[150] Reviewers must "prepare a report that describes the nature of their review and their findings and conclusions," which the agency shall make available online. Peer review is not to be deemed completed (and adoption of a rule is not appropriate) until "the agency considers and addresses the reviewers' comments."[151] More stringent requirements apply where – as here – the information at issue is novel, controversial, or precedent-setting, or has significant interagency interest (*i.e.*, where the information is "highly influential").[152] Agencies relying on "highly influential" assessments must ensure balance and independence among any panel of reviewers,[153] excluding any agency

[149] Reviewers "shall be selected based on expertise, experience and skills, including specialists from multiple disciplines, as necessary." *Peer Review Guidelines* at 2675 § II(3). Moreover, "[m]ore rigorous review is necessary for information that is based on novel methods or presents complex challenges for interpretation," or "when the information contains precedent-setting methods or models, presents conclusions that are likely to change prevailing practices, or is likely to affect policy decisions that have a significant impact." *Id.*

[150] *See id.* at 2668 ("When an information product is a critical component of rule-making, it is important to obtain peer review before the agency announces its regulatory options so that any technical corrections can be made before the agency becomes invested in a specific approach or the positions of interest groups have hardened. If review occurs too late, it is unlikely to contribute to the course of a rulemaking.").

[151] *Id.* at 2670.

[152] *Id.* at 2671. OMB also labels "highly influential" any information that could have a potential impact of more than $500 million in any one year on either the public or private sector. *Id.* Of course, it is impossible at this point to know whether any requirements implemented in this docket would also satisfy this requirement. In any event, this question is academic, because the qualities cited above alone render the information at issue "highly influential" for DQA purposes.

[153] *Id.* at 2671. Specifically, the reviewing body must include a "broad and diverse representation of respected perspectives and intellectual traditions within the scientific community." *Id.*

employees not retained for the sole purpose of conducting peer reviews.[154] After the peer reviewers issue their assessment, the agency must explain in writing all actions it "has undertaken or will undertake" in response, and why it believes those actions will be sufficient to address concerns raised by the review.[155] Finally, while agencies may sometimes rely on previous peer reviews conducted by third-parties in the case of "influential" information,[156] the Guidelines require "highly influential" information to be reviewed under the agency's supervision.[157]

The existing studies regarding avian mortality generally have not been subject to the necessary review and are limited in scope, quality and/or applicability in any case. The studies constitute "influential information," because if used as the basis for regulation, they will have a "clear and substantial impact on important public policies or private sector decisions." They constitute "*highly* influential information," both (1) because the FCC, FAA and FWS all have an interest in this proceeding, as do other agencies that use towers, including DOD and DOE, and (2) because they are "novel, controversial, or precedent-setting." While one phase of the Michigan study is close to or at completion, the sample size is limited and the necessary peer review has not yet been conducted. Needless to say, in the absence of peer review, the Commission will be unable to *respond* to such review, in writing or otherwise. Under these circumstances, reliance on the current scant scientific record to justify imposition of any

[154] *Id.* at 2676 § III(3)(c).

[155] *See id.* at 2676 § III(6).

[156] *Id.* at 2675 § II(2) ("For information *subject to this section of the Bulletin* [*i.e.*, the section governing review of influential information], agencies need not have further peer review conducted on information that has already been subjected to adequate peer review.") (emphasis added).

[157] *Id.* at 2675 § III(2) ("To the extent permitted by law, each agency shall conduct peer reviews on all information subject to this Section.").

requirements in this docket would be contrary to the requirements of the DQA, and thus impermissible.

III. THERE IS INSUFFICIENT PROBATIVE EVIDENCE THAT THE FCC'S "SOLUTIONS" WILL MITIGATE MORTALITY

Based on the existing record and available literature, the Infrastructure Coalition agrees with Avatar that "not enough is known to recommend different types of mitigation for mortality."[158] In particular, the FCC's tentative conclusion to prefer white strobe lighting systems may do more harm than good and is not adequately supported by evidence. Nor is there sufficient evidence to adopt rules concerning the use of guy wires, tower height, or collocation. Until definitive, broad-based research has been conducted and peer-reviewed, consideration of specific mitigation preferences or regulations is unwarranted.[159] Caution is particularly warranted where, as here, the FCC's actions could take it far afield from what other expert agencies have done to date with respect to avian-tower issues.

The better choice is for the FCC to forego regulatory intervention and allow dialogue and negotiations to continue between infrastructure providers and environmental groups as a more useful path to an outcome that serves the varied goals of this proceeding. At the same time, the Commission should encourage research efforts examining various mitigation proposals to continue apace, and support the joint efforts of the infrastructure and environmental communities to request the FAA to conduct a conspicuity study to examine whether solid red sidelights can be removed from towers without harming air safety.

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[158] Avatar Report at § 3-56; *see also* NMGF (3/07) at 1 ("At present, the published research is insufficient to quantitatively document . . . the precise effectiveness of particular mitigation measures.").

[159] Woodlot (2/05) at 7.

A. The FCC's Tentative Lighting Preference Is Not Supported by the Evidence and May Undermine Commission Goals

There is not probative evidence sufficient to support the FCC's tentative conclusion that "the use of medium intensity white strobe lights for nighttime conspicuity is to be considered the preferred lighting system over red obstruction lighting systems to the maximum extent possible without compromising aircraft navigation safety."[160] Although some reports suggest that white strobe lights may be less attractive to birds, Avatar concluded in September 2004 that "this has not been proven to date."[161] This remains the case today. Thus, "no clear conclusions can be drawn, based on the existing literature, regarding the importance and effects of lighting color, duration, intensity, and type (*e.g.*, incandescent, strobe, neon, or laser) and bird attraction. Additional research is needed on the types of lights in conjunction with other factors that increase or decrease the risk of bird collisions with communication towers."[162] Both Gauthreaux *et al*. in 2006 and Dr. Gehring in 2007 wrote in support of the need for more research.[163]

Indeed, the FCC's tentative conclusion also finds no real support in the document it is predicated on: the 2004 FAA Memorandum.[164] According to the FCC, the FAA Memorandum states that "use of medium intensity white strobe lights for nighttime conspicuity is to be

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[160] *NPRM*, 21 FCC Rcd at 13262.

[161] Avatar Report at 3-43.

[162] Avatar Report at § 3-46.

[163] *See* Gauthreaux article at 86 ("Much more research is needed to answer . . . how migratory birds are influenced by tower lighting."); Gehring (4/07) Lighting Report at 12 (stating that "[s]tudies of how the lights on taller towers impact fatality rates should be the focus of future conservation research" and acknowledging the need for "the FAA to conduct proper tower visibility or conspicuity testing"); *see also* Michigan Study Results Presentation ("Further research needed") (referencing trends observed with red strobe lighting).

[164] *See NPRM*, 21 FCC Rcd at 13261-62 (citing April 6, 2004 Memorandum from the FAA's Program Director for Air Traffic Airspace Management, ATA-1, Sabra W. Kaulia, to Regional Air Traffic Division Managers) ("2004 FAA Memorandum").

considered the preferred system over red obstruction lighting systems when feasible and to the maximum extent possible in cases in which aviation safety would not be compromised."[165] There is, however, no discussion in the *NPRM* about the scientific basis, or lack thereof, on which the 2004 FAA Memorandum relies. In fact, the memorandum is based on voluntary guidelines adopted by FWS in 2000.[166] Those guidelines, however, were based only upon "the best information available" at the time[167] – information which Avatar has evaluated and found inconclusive.[168] Indeed, until recently, FWS was not even willing to recommend FCC rule changes based on its guidelines, stating that "until more definitive lighting determinations are reached based on credible, statistically-significant, peer-reviewed science, the [FWS] will not . . . make recommendations to the FCC and the Federal Aviation Administration (FAA) to modify their standards . . . ."[169] Thus, far from being a source of substantiated source support for the tentative conclusion, the FWS guidelines and, in turn, the FAA memo, fail to offer any probative

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[165] *See NPRM*, 21 FCC Rcd at 13261; *see also id*. at 13262 ("We tentatively conclude that under the Commission's Part 17 rules, consistent with the FAA's memorandum, the use of medium intensity white strobe lights for nighttime conspicuity is to be considered the preferred lighting system over red obstruction lighting systems to the maximum extent possible without compromising aircraft navigation safety.").

[166] *See* 2004 FAA Memorandum (referencing Memorandum from Jamie Rappaport Clark, Director, U.S. Fish and Wildlife Service, U.S. Department of the Interior, to FWS Regional Directors, Subject: Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers (Sept. 14, 2000), *available at* <http://www.fws.gov/migratorybirds/issues/towers/comtow.html> (visited Apr. 16, 2007) ("FWS Guidelines")).

[167] *See id*.

[168] *See* Avatar Report at 3-46.

[169] FWS (11/03) at 8. In its recent comments, FWS now supports a change in FCC lighting standards. FWS (2/07) at 14-21. FWS does not acknowledge the departure from its prior statement that such rule changes should be justified by "credible, statistically-significant, *peer-reviewed science.*" FWS (11/03) at 8 (emphasis added). As noted, the Infrastructure Coalition will address the substantive merits of the recent FWS comments on reply.

evidence in support of the tentative conclusion.[170] As such, the FAA memo cannot form the basis for new rules.

Not only is the tentative conclusion unsupported, it could have a number of unintended harmful consequences. Foremost, because any new regulations would be based on insufficient information, there is a substantial risk that the new regulations will not accomplish the FCC's intended goals. For example, the Michigan Study findings, while not yet peer-reviewed, suggest that red strobes may be similarly beneficial to white strobes and that steady burning red lights are the greatest concern.[171] Indeed, a decade ago, the Commission cited studies favoring red strobes, noting that "recent studies have indicated that bird casualties would be dramatically reduced by the utilization of red beacon flashing lighting on towers."[172] Gauthreaux also concludes that "[p]erhaps red strobes would be better" but more research is needed.[173] Rather than vacillating between possible approaches, the FCC needs to take the time necessary to establish on a sound and scientific basis the best lighting scheme available and, if warranted, adopt final rules that will allow industry to adopt those practices. Also, it bears repeating that avian-tower mortality rates have been declining as the rate of new tower construction has been increasing. Without

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[170] Furthermore, the FAA memo itself fails to meets DQA and related OMB guidelines sufficient to support the adoption of new regulations.

[171] *See* Michigan Study Results Presentation, *supra*. While the Michigan Study suggests some trends with respect to a small sampling of towers in Michigan, it is far from clear these results would be replicated over a broader area and for towers shorter or taller than those studied. For example, a tower coordinator for a parish in Louisiana did not observe any bird deaths in his area of responsibility with periodic inspections of towers with a variety of lighting schemes over a five year period. He concludes: "[F]urther study by an independent research group is warranted especially since the alleged bird deaths ha[ve] decreased in the last five years. Thorough evaluation is recommended before implementing such a costly change." Comments of Jefferson Davis Parish Mosquito Abatement District No. 1, at 2 (Mar. 6, 2007) ("Jefferson Davis Parish Comments (3/07)").

[172] *County of Leelanau, Michigan*, 9 FCC Rcd 6901, 6903 (1994).

[173] Gauthreaux article at 88.

more research to know why, this trend could be affected by any change in policy. These factors point out the danger of premature action: if the agency acts now based on limited information and encourages white strobes over other lighting options, and later determines that other lighting schemes in fact cause lower mortality rates overall, it will have undermined a goal of this proceeding and may have increased mortality – all at considerable time and cost.

Moreover, a preference for white strobe lighting could create significant local backlash and further restrict needed tower infrastructure. As Avatar has explained, "white strobe lighting often is not favored by residents located within sight of the tower; therefore, this becomes an aesthetic issue as well."[174] Gauthreaux has similarly noted that white strobe lighting "poses an additional problem. People living in the vicinity of strobe lighting towers complain about the flashing lights, particularly on overcast, misty nights. They report that it is like living in a thunderstorm with constant lighting and no thunder."[175] As a result, many localities restrict the use of white strobe lighting, and the FCC's preference could have the effect of limiting siting options (and, in turn, service to the public) in many areas as a consequence. CTIA members report that community preference is the most common reason why red lights are chosen over white lights. PCIA members have also faced complaints throughout the country when medium intensity dual lighting systems (which use medium intensity white strobes during the day and red flashing lights at night) have been replaced with medium intensity white-only strobe lights – which in some cases forced the return to a dual system to quell the public discontent.

Public safety groups have raised particular concerns about white strobe lighting, noting that "out of necessity, some communications towers must be constructed proximate to neighborhoods," yet "[o]ne of the principle complaints of citizens is the annoyance of nighttime

[174] Avatar Report at 3-43.

[175] Gauthreaux at 88.

flashing white strobe lights."[176] Therefore, "[a]s a strategy to minimize citizen complaints" while making needed improvement to public safety infrastructure, dual lighting systems have been selected.[177] Tower siting for vital public safety and homeland security operations could be rendered that much more burdensome without a flexible lighting option: "If the Commission's NPRM takes away this strategy that minimizes citizen complaints when tower construction is required, it will be even more difficult for a government to develop critical public safety and homeland security communications infrastructure."[178]

A white strobe lighting preference also may endanger air safety. The primary purpose of nighttime lighting is to enhance aircraft navigation safety by marking obstacles to air navigation. According to one commenter, "[i]t has been well documented . . . that exposure to strobe lighting can cause flicker vertigo resulting in pilot disorientation, aircraft mishaps and loss of human life."[179] The commenter concludes: "The replacement of steady or blinking red communication tower lighting by any form of strobe lighting, especially white strobe lighting increases the hazard to aviation. Bird strikes are insufficient rationalization to risk the health and safety of the aviation community."[180] Other commenters similarly state that white strobe lighting "poses a serious detriment to depth perception and spacial orientation" when flying near towers equipped

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[176] *See* Comments of Prince George's County, MD, Anne Arundel County, MD, Regional Planning Committee 42 (800 MHz), Commonwealth of Virginia, Maryland Institute for Emergency Medical Services Systems and Maryland State Highway Administration, at 7 (Jan. 5, 2007) ("Maryland/Virginia Public Safety Comments (1/07)").

[177] *Id.*

[178] *Id.*

[179] Comments of G. Stanford (12/06) at 1 (citing FAA Flying Handbook, Chapter 10 at 10-2, *available at* <http://www.faa.gov/library/manuals/aircraft/airplane_handbook/media/faa-h-8083-3a-5of7.pdf>).

[180] *Id.*

with such lighting.[181] These comments demonstrate that it is essential to cautiously approach any proposed change to FAA lighting, and to do so only after FAA conspicuity studies are conducted to determine the impact any lighting preference may have on air safety.

Finally, a white strobe lighting preference could impose unjustified costs on industry and, in turn, consumers. With respect to the latter, the FCC has also asked about retrofitting existing towers to conform with any new lighting preference, and what circumstances should trigger such a requirement.[182] Public safety groups oppose a requirement to retrofit towers, and for good reason.[183] Any retrofitting rule would create a high economic burden. According to CTIA member polling,[184] the cost of relighting a single tower with white-only lights ranges from an average of $10,900 for towers 200 feet or less, to $18,000 for towers taller than 200 feet but shorter than 500 feet, to $26,000 for towers taller than 500 feet. And according to NAB's consulting engineers, the cost of relighting a tower over 1000 feet could well exceed $100,000.[185] These costs are not justified based on the current record, particularly in light of the

[181] Comments of St. Tammany Parish Mosquito Abatement District 2 at 1 (Mar. 5, 2007); *see* Jefferson Davis Parish Comments (3/07) at 1; Comments of Louisiana Mosquito Control Association at 1 (Mar. 13. 2007) (noting that pilots will often avoid areas with white-strobe-lit towers to ensure their safety, leaving large areas of mosquito-infested areas to go untreated. As a result of such concerns, Jefferson Davis Parish, LA established an ordinance requiring towers over 100 feet "to be equipped with medium intensity Red lighting for safety reasons." Jefferson Davis Parish Comments (3/07) at 1. PCIA members have experienced similar issues elsewhere in Louisiana and in California where local requirements necessitate tower lighting, even where the FAA does not, to protect low flying aircraft (e.g., crop dusters in agricultural areas).

[182] *See NPRM*, 21 FCC Rcd at 13264.

[183] *See* Maryland/Virginia Public Safety Comments (1/07) at 7 ("[T]he Filers do not support a requirement to retrofit existing towers.") (citing *NPRM*, 21 FCC Rcd at 13264).

[184] CTIA polled its members to obtain aggregate tower lighting and cost data. Responding members' tower portfolio comprised nearly 34,000 towers, of which approximately 12,000 are lighted. Of those, approximately 10,250, or 85 percent, use dual or red lighting systems.

[185] Cost estimations are based upon polling discussions with engineering and tower consultants and reflect that a substantial portion of costs include recabling and labor.

unclear benefit, mixed evidence at best of overall public interest, declining bird-tower mortality rates and the pending request to the FAA to conduct a conspicuity study to examine whether red sidelights can be safely eliminated from towers. Accordingly, any retrofitting rule should not be adopted.

B. Evidence Is Also Lacking to Impose Other Regulations

There is also not probative evidence sufficient to impose regulations relating to the use of guy wires, tower height or collocation. To the contrary, there is a very real risk that premature decisions in each of these areas will have a number of adverse consequences that counsel against any regulatory intervention.

With respect to guy wires, claims that "[t]owers with guy wires are at higher risk than self-supporting towers"[186] have not been substantiated by well-controlled, peer-reviewed experiments.[187] As noted, the Michigan Study findings are not yet peer-reviewed, and in any event are based on too small a sampling of towers in a limited geographic area to form the basis for regulation. In fact, prior to the Michigan Study, no specific studies comparing avian collisions between guyed and self-supporting structures are known to exist.[188] Nor have studies been conducted showing what comparative impact regulation in favor of non-guyed towers would have on coverage (for example, if non-guyed towers are shorter and hence more are needed to cover the same area) or collocation (for example, if a freestanding structure cannot support the same number of collocators and more towers are needed as a result).

Indeed, various state representatives have cautioned against regulations that would limit the use of guyed towers, noting that taller towers needed for coverage purposes in rural areas

[186] Avatar Report at § 5.1.

[187] *See* Woodlot (2/05) at 6.

[188] Avatar Report at 3-36.

often require guy wires due to windy conditions.[189] CTIA and PCIA members have also reported the need for guyed wires when tower heights reach 250-300 feet, where the topography is uneven or the soil wet and/or unstable, or for economic reasons (guyed towers may be less expensive to construct than free standing towers, depending on site conditions, though more expensive to maintain).[190] In some jurisdictions, members report that guyed towers are preferred aesthetically because they result in a more slender, unobtrusive tower than a self-supporting tower of similar height. What is clear is that the Commission should not expand the circumstances when an EA is required to include towers with guy wires.[191] Doing so will only add to the delays already incurred in the tower siting process – a particular concern for public safety[192] – and curtail construction of needed infrastructure where guyed towers are the only practical alternative.

With respect to tower height, as Avatar noted, "existing data are not sufficient to draw direct conclusions between tower height and migratory bird collisions."[193] The Michigan Study findings remain limited by their small sample base and study area and in any event have not been subjected to peer review. Nor is there is any established threshold height effect level reported in

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[189] *See, e.g.*, Comments of the South Dakota Public Utilities Commission at 2-3 (Mar. 8, 2007) ("South Dakota PUC Comments (3/07)"); Comments of M. Michael Rounds, Governor, State of South Dakota at 1 (Mar. 13, 2007) ("South Dakota Governor Comments (3/07)").

[190] Both CTIA and PCIA polled their members to obtain aggregate tower portfolio data. In the case of CTIA, this was based on an aggregated total of nearly 34,000 member towers. In the case of PCIA, this was based on an aggregated total of approximately 35,000 member towers. For both associations, responding members indicated that less than one quarter of their towers are guyed.

[191] *See NPRM*, 21 FCC Rcd at 13265-67.

[192] *See* Maryland/Virginia Public Safety Comments (1/07) at 8 ("[A]dditional environmental rules relative to administrative reviews are not needed. In a county like Prince George's, the requirement to construct a large number of towers and comply with all local, county, state, and federal requirements is already calculated under the current rules not in terms of months, but in years. Public safety already experiences significant challenges without a requirement to add new administrative procedures.").

[193] Avatar Report at 3-36.

the literature.[194] In fact, the Michigan Study did not include any towers below 380 feet, and "there have been few mortality studies and monitoring programs for the 'short towers' (500 ft and less)."[195] Yet, these shorter towers comprise the overwhelming majority of towers nationwide. For example, based on CTIA and PCIA member polling,[196] more than 60 percent of member towers are 200 feet or less in height, and an additional 30-plus percent are greater than 200 feet but shorter than 500 feet in height; less than one percent of towers are greater than 500 feet tall. For AM, FM and television broadcasters, more than 46 percent of broadcast antenna structures are 200 feet or less in height.[197] Even if a broadly-applicable correlation was ultimately shown to exist between tower height and bird mortality, caution would be warranted. State regulators have noted the need for taller towers to enable a stronger signal to reach more geographic area – particularly in rural areas that may be underserved – for the benefit of commercial and public safety end users as well as a state's economic development.[198]

Any decision to prefer multiple, shorter towers could also increase the number of towers that adversely affect historical sites, contrary to the 2001 Collocation Agreement encouraging collocation so that fewer, rather than more, towers are required.[199] This is because shorter towers offer communications or broadcast coverage to a smaller area, so that more towers are generally

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[194] *See id.*; Woodlot (2/05) at 2, 5.

[195] Avatar Report at 3-34.

[196] *See supra* note 190.

[197] Data provided by an engineering consulting firm retained by NAB.

[198] *See, e.g.*, South Dakota Governor Comments (3/07) at 1 ("We do not support a tower height limitation of 200 feet or lower. . . . For build-out in South Dakota's underserved rural areas to take place, it will likely be necessary for towers to be taller than 200 feet . . . ."); South Dakota PUC Comments (3/07) at 2 (same).

[199] *See Execution of Programmatic Agreement with respect to Collocating Wireless Antennas on Existing Structures*, 16 FCC Rcd 5574 (WTB 2001), *recon. denied*, 20 FCC Rcd 4084 (WTB 2005) ("Collocation Agreement").

required to cover the same area and avoid loss of service (although even in the best of cases multiple shorter towers often cannot replace the quality of service offered by a single tall tower).[200] In addition, it must be stressed again that in some regions, due to geography or topography, taller towers are necessary to provide reliable communications. To the extent that shorter towers are used, there also may be fewer collocation opportunities, as shorter towers will have less space available for collocation. Alternatively, a proposal to require that an EA be filed for towers that exceed a certain height threshold[201] may have the same net effect as a guyed-wire EA filing requirement: to delay the tower siting process and curtail the use of tall towers (and the services they support for the benefit of the public) where they are the only practical alternative.[202]

Finally, with respect to collocation of new antennas on existing structures, the FCC's rules already encourage collocation.[203] The record does not support imposing a requirement that licensees collocate. Collocation should remain encouraged, rather than mandated, as there are situations where collocation is not an option for technical, safety, economic or other reasons.[204]

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[200] *See* Reply Comments of NAB at 8-19 (Dec. 11, 2003). Public safety representatives in Prince George's County, MD considered a strategy to limit the height of all new towers to approximately 200 feet. In the case of its new 700 MHz land mobile radio system, however, this would have meant the need to add an additional 6-8 towers to its 21-site plan to provide the same level of coverage. The county rejected the strategy because the resulting costs were prohibitive: "To achieve that same level of in-building coverage, the County estimated that an additional six to eight towers would be required *with an added project cost in excess of $12,000,000 to 16,000,000*." Maryland/Virginia Public Safety Comments (1/07) at 8.

[201] *See NPRM*, 21 FCC Rcd at 13265-67.

[202] *See* Maryland/Virginia Public Safety Comments (1/07) at 8.

[203] *See* 47 C.F.R. § 1.1306 note 1 ("The use of existing buildings, towers or corridors is an environmentally desirable alternative to the construction of new facilities and is encouraged.").

[204] *See, e.g.*, South Dakota Governor Comments (3/07) at 2 (collocation "should be encouraged as long as it does not diminish rural areas, where existing structures may be limited, from hosting a tower").

For example, taller towers are generally needed to accommodate multiple collocators but are not feasible for all applications. Collocation also may be inadvisable for public safety licensees due to security concerns.[205]

IV. REGULATION IS CONTRARY TO THE PUBLIC INTEREST

Finally, regulation of tower siting and construction with respect to migratory birds is contrary to a number of broad-based public interest goals, including the enhancement of the Nation's public safety infrastructure, the provision of emergency services, and rapid deployment of new and advanced services to rural as well as non-rural areas of the country. Regulation may also impose significant costs on government and the private sector.

Foremost, the FCC should weigh heavily the comments of the public safety community in this proceeding. In its comments, the Association of Public Safety Communications Officials International, Inc. ("APCO") expressed concern that this proceeding "*not lead to significant restrictions on the placement of communications facilities*."[206] Noting that police, fire and other public safety agencies depend on "sufficient quantity, size, and location of transmission towers" to support ubiquitous radio communications, APCO emphasized that "tower siting is the most critical, and most difficult, aspect of designing a public safety communications system."[207] The same holds true for commercial systems, which support valuable E911 and EAS services. For these additional reasons the FCC should be hesitant to regulate until adequate studies as outlined

[205] *See* Maryland/Virginia Public Safety Comments (1/07) at 6 (explaining that "in the war on terrorism, public safety licensees must very carefully consider issues of communications infrastructure security. In contrast to past practices where public safety antennae were co-located on commercial structures, twenty-first century security concerns suggest that it is appropriate for governments to construct critical public safety communications infrastructure and comprehensively provide for their security against attacks").

[206] Comments of APCO International at 1 (Dec. 10, 2003) (emphasis added); *see generally* Maryland/Virginia Public Safety Comments.

[207] *Id.*

above have been conducted. As Hurricane Katrina and the terrorist acts of September 11, 2001 made all too clear, enhancements to the Nation's communications infrastructure are of critical importance,[208] and should only be restricted in the most compelling of circumstances – something which the facts here do not support.

Regulation is also contrary to the Commission's broad public interest mandate to ensure widespread communications and the infrastructure to support it. The purpose of the Commission is, among other things, "to make available, so far as possible, to all the people of the United States . . . *a rapid, efficient, Nation-wide*, and world-wide wire and radio communication service."[209] The Telecommunications Act of 1996 also directs the Commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans . . . by utilizing, in a manner consistent with the public interest, convenience, and necessity . . . regulating methods that remove barriers to infrastructure investment."[210] As explained above, regulation here runs the real risk of precluding needed communications towers and the services they support for the benefit of the public, *e.g.*, by preferring lighting schemes at odds with local preferences or requiring EAs (and the attendant delays that accompany any such filings) for guyed or tall towers. In a field that is already burdened with multiple regulatory

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[208] *See, e.g.,* Maryland/Virginia Public Safety Comments (1/07) at 3 (explaining that "Prince George's County, Maryland is now in the process of implementing a $68,000,000 land mobile radio (LMR) system designed to support its emergency first responders. This system will be an important part of the National Capital Region (NCR) communications program that provides public safety interoperability throughout the nation's capital and surrounding areas. The National Capital Region was designated by the United States Department of Homeland Security as a high priority for federal funding due to the high threat level of the nation's capital. To construct this critically important new LMR system and provide critical in-building radio coverage for first responders, a number of communications towers must be constructed.").

[209] 47 U.S.C. § 151 (emphasis added).

[210] Pub. L. No. 104-104, § 706(a), 110 Stat. 56, 153 (reproduced in the notes under 47 U.S.C. § 157); *see also NPRM*, 21 FCC Rcd at 13258-59.

mandates at the federal, state and local level, such bans will, at a minimum, lead to more delay in expanding network infrastructure and the valuable public services it supports.

The Commission is also specifically charged with promoting service to rural areas.[211] In acting to promote such service, for example, the Commission created a unique tower height rule in the cellular context to permit rural cellular service providers to serve what would otherwise be economically unattractive rural areas with a few tall towers using higher power.[212] This incentive would be frustrated by any regulation that artificially limits the use of tall towers. Indeed, state regulators in this proceeding have expressed that very concern, noting that restrictions on tower height could require the costly construction of three shorter towers where previously one would do. In turn, such restrictions could discourage providers from covering the maximum rural area that would otherwise be possible, to the detriment of commercial users and public safety. For example, the South Dakota PUC explained:

> If restrictions on taller towers are adopted, these restrictions would have a negative impact on South Dakota. For example, in order to offer similar service to the same rural geographic area in South Dakota, a provider would need to erect three shorter towers as compared to one taller tower. Understanding the considerable investment a wireless provider makes when constructing a new tower, it is unlikely the provider would be willing to place three times the number of shorter towers in South Dakota when one taller tower would provide the same service. Therefore, it can be reasoned that providers would erect fewer towers in South Dakota and *the state's economic development, public safety and quality of life would suffer*.[213]

Restrictions on the use of guyed wires could have a similar chilling effect, particularly where needed due to geography or weather conditions.

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[211] *See, e.g.*, 47 U.S.C. § 309(j)(3)(A).

[212] *See* 47 C.F.R. § 22.913.

[213] South Dakota PUC Comments (3/07) at 2 (emphasis added).

While the Commission should take into account environmental considerations, it need not elevate them over other appropriate considerations within its mandate.[214] Here, the need for environmental action has not been proven, while the detrimental effect of more government regulation on tower siting and construction is apparent. Communications providers across the country face challenges in providing premier and reliable services over their networks and any categorical constraint on towers (*e.g.*, restrictions concerning guyed wires, height, lighting and/or collocation) will impose significant costs on the industry and in turn will significantly impair the provision of vital services to all Americans. Thus, the FCC should decline to adopt new regulations.[215]

[214] *Cape May Greene, Inc. v. Warren*, 698 F.2d 179, 188 (3rd Cir. 1983); *Save Lake Washington v. Frank*, 641 F.2d 1330, 1334 (9th Cir. 1981). Indeed, an agency is plainly permitted to balance costs and benefits when establishing regulations. *State Farm*, 463 U.S. at 54; *Cellular Phone*, 205 F.3d at 92.

[215] Indeed, where the burdens of a heavily-regulated industry already are significant (*see, e.g.*, Nationwide Programmatic Agreement obligations), there should be a high evidentiary threshold that must be met to justify imposing an additional layer of environmental regulations which would require the expenditure of significant public and private resources and further inhibit an essential activity such as tower siting.

CONCLUSION

For the foregoing reasons, the Commission should decline to adopt regulations. Instead, the Commission should foster ongoing negotiations between infrastructure groups and avian environmental groups; support the joint efforts of those groups in their request to the FAA to conduct a conspicuity study to examine whether red sidelights can be safety eliminated; and encourage continuing broad-based, peer-reviewed research into avian-tower issues.

Respectfully submitted,

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